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FOR THE PROTECTION OF WILD BIRDS AND MAMMALS

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OF THE
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The Editor solicits the gift of articles, notes, photographs, and sketches, on the various aspects of Nature Lore, Natural Science, and Conservation of Natural Resources. If possible, articles should be typewritten, double-spaced, on one side of the paper. Photographs should be on glossy paper with data attached. The Society is a non-profit educational institution and we offer no remuneration for contributions to the *Bulletin*. The Society assumes no responsibility for the safety of manuscripts or illustrations submitted for its use.

All correspondence, changes of address, etc., should be directed to the
Editorial Office, 155 Newbury Street, Boston 16.

The President's Page



The following correspondence will, I hope, be interesting to our members:

July 21, 1955

Honorable John B. Hynes
Mayor of the City of Boston
City Hall, Boston, Mass.

Dear Mr. Mayor:

On behalf of the 7500 members of the Massachusetts Audubon Society we respectfully request that you do not sign the suggested loosely drawn contract with Motor Park Inc.

The following paragraph from the Boston Herald of July 21 makes one shudder: "Motor Park engineers have assured us that the 48-inch copper beech tree in the Garden will be successfully transplanted within 100 feet of its present location. They have had tree experts study the problem carefully. About 47 more trees will have to be removed in the normal course of construction, most of them on the Common."

Very truly yours,

Robert Walcott

July 25, 1955

Mr. Robert Walcott, President
Massachusetts Audubon Society
912 Barristers Hall, Boston 8, Mass.

My dear Sir:

I have your letter in which you call attention to the transplanting of trees on Boston Common.

Under the terms of the legislative act authorizing the building of the Common garage, all trees must be restored to their original position and appearance. Of course, this will be done as well as possible. Our Park Department is very zealous of the appearance of the Common and the trees on the Common and I think we can rest assured that everything will be done to preserve the surface appearance of the Common.

With best wishes, I am

Respectfully,
John B. Hynes
Mayor

July 28, 1955

Honorable John B. Hynes
Mayor of the City of Boston
City Hall, Boston, Mass.

My dear Sir:

I acknowledge receipt of your letter of July 25th, but cannot share your feeling that the Park Department "is very zealous of the appearance of the Common," and I am unable to "rest assured that everything will be done to preserve the surface appearance of the Common."

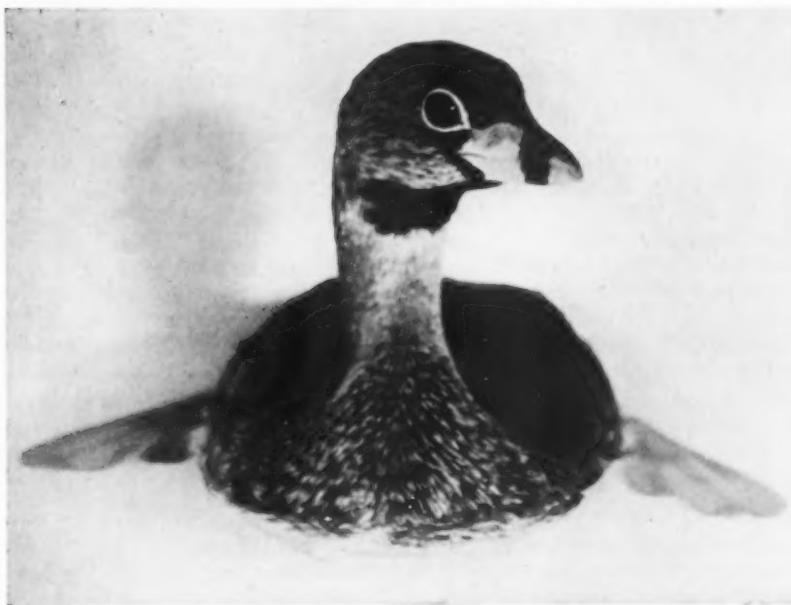
Had they had the solicitude you speak of they would not have refused a public hearing, and a corporation that will not divulge the names of its directors until it has a contract signed will naturally arouse suspicions of its zeal for the public good.

Yours respectfully,
Robert Walcott

(Continued on page 336)

Folk Names of New England Birds

BY W. L. MCATEE



M. H. OLDHAM FROM N. A. S.

The Pied-billed Grebe, known generally as Dabchick, is also known by many other names in New England, such as Dipper-duck, Hell-diver and Pied-bill.

The names here presented have been extracted from a large manuscript on "American Bird Names: Their Histories and Meanings," which seems unlikely to be published as a whole. The collecting was done as a side line over a period of forty years, during which more than sixty thousand names in fifteen languages were accumulated. The compilation closed with the year 1947.

Naturally, in a work of this character, much collaboration was involved, including responses to field interviews and to mailed questionnaires, and contributions by friends and correspondents, to all of whom grateful acknowledgment is made. The work was supported by the United States Biological Survey in an incidental way for many years and finally as an almost full-time project by the Fish and Wildlife Service. Co-operation brought about by that relationship also involved individuals too numerous to list here, but the writer hopes to be allowed to mention in this article, probably the largest excerpt from the work there will ever be, the aid of three efficient women. Mrs. Ida K. Johnson, to name only one among many helpful librarians, was persevering in unearthing copies of hard-to-get books, so that practically all citations from the literature were personally verified. Miss Phoebe Knappen made the first

systematic arrangement of the material, cared for the files for some years, added to them from books, and increased them by personal expeditions to interesting source regions at her own expense. Recorded thanks are hardly adequate recognition of the value of her co-operation. Lastly, the faithful aid of Miss Florence Warnick, secretary to the compiler for more than a score of years, has contributed more to the final product than can readily be stated. Not only in her special departments of stenography and typing, but also during the last twelve years of the project as partner in almost all of its phases, she was accurate, industrious, and indefatigable. The compiler's estimate of the value of her services and his appreciation of them are quite beyond expression.

In preparation of the present excerpt, constant use has been made of *Birds of Massachusetts and Other New England States* by Edward Howe Forbush. These three massive and elaborately illustrated volumes, despite their quarter-century age, remain the best of the regional bird reports. And I wish to pay them the further tribute of having been through all the years the most consulted and the most useful work on American birds in my library. The concise and dependable summaries of knowledge, the well-written text, and the incomparable colored plates by Louis Agassiz Fuertes, all contribute to this supreme utility. If I may point to notable collaborators, I would mention John A. Farley and John B. May, whom I saw in action during various visits to Boston; and women again: Mrs. Alice B. Harrington, in the comprehensive position of secretary for many years, and Mrs. Etta L. Forbush, as critic and proofreader, were of inestimable helpfulness throughout. Forbush, I am sure, would agree with me as to women assistants, that without their aid men never seem to accomplish anything of much importance.

Forbush lists numerous vernacular synonyms of birds, not intending, as I take it, to aver that they are used in Massachusetts or even in New England. Indeed, some of them are book, not folk, names. At any rate, in choice of terms, and in annotating their distribution, I have taken into consideration all of the evidence in our files, and this accounts for departures from the Forbush lists. Explanations of names based on color in the present paper may be taken from that author's work without the formality of quotation.

State records, in north to south sequence, are noted by customary abbreviations. When all of the States are involved, the word "all" is used. "New England" indicates records of indefinite significance, and, to avoid confusion with the abbreviation, "Me." is always spelled out. Comment like "general," "universal," and the like is to be interpreted with reference to the range of the species concerned. As a rule, this paper does not explain names adequately treated in standard dictionaries or those the meaning of which is obvious and correct. The card catalogs basic to all of my bird name writings are in the Fuertes Museum and Library, Cornell University, Ithaca, New York, and the manuscript mentioned in the first paragraph of this introduction, if not published, will be deposited in the general library of that institution.

No collection is ever complete, and persons younger than the author can well supplement the present account. Library research may add something, but field study is most needed. As a special suggestion, it would seem that French names, perhaps many of them, may be found in use near the Canadian boundary.

Systematic List

COMMON LOON. Big Loon, call-up-a-storm (New England). Its crying supposed to presage bad weather. Thus Thoreau wrote: "Occasionally . . . he uttered a long-drawn unearthly howl, probably more like that of a wolf than any bird . . . perhaps the wildest sound that is ever heard here . . . At length, having come up fifty rods off, he uttered one of those prolonged howls, as if calling on the god of loons to aid him, and immediately there came a wind from the east and rippled the surface, and filled the whole air with misty rain" (*Walden*, 1854). And Celia Thaxter said that "their long, wild melancholy cry before a storm is the most awful note I ever heard from a bird. It is so bad, so hopeless,—a clear, high shriek, shaken, as it drops into silence, into broken notes . . . a shudder of sound. They invariably utter this cry before a storm." (1885); Devil-diver (Maine. In reference to its uncanny diving ability); Great Loon (Mass., R. I. A common early name.); Hell-diver (Rather general. This name refers to the bird's almost supernatural diving powers.); Loon (Rather general. The conventional explanation is that this word is derived from the Scandinavian *lom*, probably from the same ultimate source as a term meaning lame, the bird being very awkward on foot. An additional suggestion is that the appellation may be sonic, a common call of the bird sounding like *ah-loo.*); Pond Loon (Mass.); Sea Loon (Maine); Sheep Loon (Mass. The young.).

RED-THROATED LOON. Cabrace, Cape-brace, Cape-race (Mass.); Cape-racer (Maine, Mass.); Caybrace (Mass. All of these terms are from Cape Race, Nfd., near which it is often seen.); Cobble (New England. A British provincial name for the young of this species. May it not compare the sharp bill to a cobbler's awl?); Gray Loon (Maine); Gun-greaser (New England. Perhaps the fat was used as a preservative of firearms.); Little Loon (Mass., R. I.); Peckinall Loon, Pegging-awl (Mass.); Pegging-awl Loon (Maine, Mass. These three names refer to the resemblance of the long pointed bill to the pegging awl, formerly used by shoemakers.); Pegmonk (Mass. Probably a combination of the terms pegging-awl and touchmonk.); Pepper-shin, Pepper-shinned Loon (Mass. From the speckled coloration of the legs.); Red-throat (Mass. Adults in breeding plumage have a long-triangular chestnut patch on the foreneck.); Salt-water Loon (Mass.); Scapegrace (Mass. See first not on this species.); Spike-bill (Mass. The bill is long and pointed.); Sprat Loon (Forbush, 1925. This British provincial name for the bird refers to its feeding on a small kind of herring known as sprat.); Teal (Mass. As a bird small for its kind.); Touchmonk, also spelled Tutchmonk. (Mass. Meaning unknown.).

HOLBOELI'S GREBE. Bobtail (Maine. All grebes have a rudimentary tail.); Devil-diver (Maine. A tribute to its uncanny diving ability.); Dipper (Maine. That is, diver; early use, Albin, 1738); Dipper Duck (Mass. A diver; any small water bird may be called a duck.); Hell-diver (Maine. This name refers to the bird's apparently supernatural diving powers.); Redthroat (Maine. Adults of both sexes have the lower throat and front and sides of the neck deep brownish red.); Ting-tang (New England. In Scotch and in dialectic British, this word may be applied to anything inferior; it may refer to the grebe's inedibility; on the other hand, the term may be a facetious reply to the question, "What's that?" "Oh! a Ting-tang."); Water-witch (Mass. This refers to the birds uncanny ability in submerging beneath the water.); Wearhen (Maine. As a somewhat henlike bird that frequents fish traps or weirs;

"wear" is Scotch and British dialectic for *weir* that is also rather widespread in Atlantic coast States.).

HORNED GREBE. Devil-diver (New England; Dipper (Maine, Mass.); Dipper-Duck (Mass.); Hell-diver (General; for all names so far, see notes under the preceding species); Little Diver (New England. That is, in contrast to the Big Diver or Loon.); Spirit Duck (Mass. Any small water bird may be called a duck; "spirit" refers to the bird's "supernatural" ability in getting under the water quickly.); Ting-Tang (Mass. See note under preceding species.); Tinker, Tinker Loon (All. "Tinker," probably in the sense of small or insignificant as compared to a loon.); Water-witch (General. See note under the preceding species. This name was recorded for New York by Pennant in 1785.).

PIED-BILLED GREBE. Dabchick (General. The bird that daps or dives; of old usage for the Little Grebe in Great Britain; recorded as early as 1667, Merrett); Devil-diver (Maine. See note under Holboell's Grebe.); Didapper (General. A shortening of Dive-dapper or Dipper. Recorded in Great Britain for the Little Grebe as early as 1565-1567. Oxford English Dictionary.); Dipper (General. That is, diver); Dipper-duck (N. H., Mass. See note under Holboell's Grebe.); Dobchick (N. H., Mass. Equivalent to Dabchick. OED records its use as far back as c. 1550 in Great Britain.); Frog-in-throat (Maine. Query: from gutteral notes?); Gray Pond-hen (Mass.); Hell-diver (Mass. See note under the preceding species.); No-tail (N. H. All of the grebes have rudimentary tails.); Pied-bill (Mass. The beak is parti-colored.); Water-witch (General. See note under Holboell's Grebe.).

SOOTY SHEARWATER. Black Hag (Mass. Hag traces to hagdown, a term used in Great Britain, derivation unknown, but when reduced to this meaningful monosyllable the significance is probably derogatory.); Black Hagden (Maine); Black Hagdon (Maine, Mass., R. I. See preceding note); Black Haglet (Mass. Latter term means the little hag; it is a shortening of hagdown, but probably has a meaning of its own — the usual sense in our language.); Hag (Maine); Hagdon (northeast).

MANX SHEARWATER. Black Hagdon (Maine. See notes under the preceding species.).

GREATER SHEARWATER. Common Hagden (Maine); Gray Hag, Gray Haglet (Mass.); Hag (Maine, Mass.); Hagdon (Maine, Mass., R. I.); Haglet, White Haglet (Mass.). See commentary on similar names under the Sooty Shearwater.

CORY'S SHEARWATER. Grew (i.e., gray) Gull (R. I.).

FULMAR. Hag (Maine. See note under Sooty Shearwater.); Marble-header (as being frequently seen off Marblehead, Mass.); Noddy (Some say because "they constantly nod their heads while flying." Templeman, 1945); Oil Bird (from the oily substance it spews upon provocation); White Hagdon (See notes under Sooty Shearwater.). All but the first name are recorded as from New England in my copy of the manuscript, more detailed information not being at present available to me.

LEACH'S PETREL. Carey Chicken, Kerry Chicken (Maine, Mass.); Mother Carey's Chicken (Maine, Mass.). In all these terms, "chicken" means merely bird or small bird; for the remainder of the name, a variety of derivations have been suggested. One having dictionary (*New International Dictionary*) sanction is that the term is an Anglicization of the Latin *Mater Cara* (esteemed mother) applied to the Virgin Mary, patroness of sailors. As these birds are regarded as portents of trouble, however, the connection does not

seem very clear. A popular explanation is: "Mother Carew was an old witch . . . good at raising the wind . . . The sailors will not shoot [the petrels] on any account; they pay them great respect, that their mother's wrath may not be roused." (Mactaggart, 1929, 1:12); Stormy Petrel (Maine. Its appearance is supposed to give warning of storms).

STORM PETREL. Mother Carey's Chicken (New England. See note under the preceding species.).

WILSON'S PETREL. Carey Chicken (Maine); Mother Carey's Chicken (Mass., Conn. See notes under Leach's Petrel.); Sea Martin (Mass. In reference to its swallowlike flight.).

GANNET. Booby Gannet (Maine. The usual meaning of "booby" in bird names is one unsuspicious of man); Gannet (General. This is an old word known from the epic of Beowulf, about 1000 A.D.; it comes from the same root as gander.); White Gannet (Mass.).

EUROPEAN CORMORANT. Crow-duck (Maine. From its black color and resemblance to a duck in shape.); Shag (Maine, Mass. In reference to the shaggy crest; this usage has been traced in Great Britain to 1566, OED.); Taunton Shag, Taunton Turkey (Mass. From being common near the town of Taunton, Mass. "Turkey" is ironical, insinuating the use of this fish-eating bird as a substitute for turkey in Taunton.); Winter Shag (Maine).



ARTHUR A. ALLEN

More information is needed about Green Herons nesting in Massachusetts. Since it is often found along small streams, it is known as Fly-up-the-creek.

DOUBLE-CRESTED CORMORANT. Nigger Goose (Universal. In allusion to its black color and gooselike appearance, especially when in flight in the V-formation so closely associated with the common Canada Goose); Sea-crow (Conn. A black bird, often seen at sea; it is, however, little like a Crow.); Shag (General. See note under the preceding species.); Taunton Turkey (Mass. See under the preceding species.).

GREAT BLUE HERON. Big Crane (Maine. Herons are frequently mis-called cranes.); Blue Crane (General. Upper parts of the wings, body, and tail are chiefly light bluish-ashy.); Crane (General. See first note.); Frog-stabber (Maine. It eats frogs and sometimes impales rather than grasps prey with its beak.); Great Han, Han (Maine. This would appear to be a dialectal pronunciation of "heron."); Lopann (N. H. In allusion to its floppy flight.); Old Hand (Maine. A familiar or "pet" name, one meaning of which is "devil."); Sandhill Crane (Maine. Probably by transfer from the generally similar bird, properly so-called, which is now of only accidental occurrence in New England.).

AMERICAN EGRET. White Crane (General. See first note under the preceding species.); White Old-hand (Mass. See note on Old Hand under the preceding species.).

SNOWY EGRET. White Crane (General. Herons are frequently mis-called cranes.).

LITTLE BLUE HERON. Blue Crane (General. Same note. The body and wings are dark slaty blue except in the white and mottled color phases.); Little Blue Crane, Little White Crane, White Crane (general).

GREEN HERON. Fly-up-the-creek (General. It is often found along small streams.); Kelly Fisher (Conn. As feeding on killifishes, called kellies.); Minnow Fisher (Conn.); Mud Hen (Mass. A bird, loosely a hen, that frequents muddy places.); Skowk (Maine; N. H. Belknap 1792; Mass. In imitation of a cry often made by the bird when it is flushed.).

BLACK-CROWNED NIGHT HERON. Barking Bird (Vt. In allusion to its *quok, quok* cries.); Bittrun (Mass. That is, bittern, through confusion with the American Bittern.); Bull Bittrun (Mass. See preceding note. "Bull" in bird names usually means large, but this species is smaller than the common bittern. Perhaps, through error, the name has been transferred from that species.); Buttermunk (N. H., Mass. Apparently by corrupt transfer from the American Bittern, which is called Butter-bump.); Dispar Goose (Mass. That is, different goose, an indisputable name, as it is no goose at all.); Fox Bird (Maine. Again by erroneous transfer from the fox-colored bittern.); Gobly-gossit (Mass. Said to be from the notes, thus possibly from the collective clamor of a herony.); Kwahk (Conn. A sonic name.); Little Crane (Maine. Herons are often mis-called cranes; "Little" by contrast to the Great Blue.); Marsh Hen (Mass. A sizable bird, thus a "hen" that frequents marshes.); Meadow Hen (Mass. Consult the preceding note.); Night Bird (Maine. A chiefly nocturnal species.); Plunket (Mass. By transfer from the bittern, for which it is a sonic name.); Qua Bird (General.); Quag (New England.); Quak, Quark, Quaw Bird (Mass.); Quawk, Quok (General); Squak (Mass.); Squaker (Conn.); Squawk (General). (All these terms refer to a common cry.); Wagin (Mass. Apparently also a basically sonic term.).

AMERICAN BITTERN. Many of the local names of the bittern have reference to, or are in imitation of, the peculiar notes of the male during the mating season. The noticeable diversity in these terms doubtless is due in part to variations in the distinctness with which the sounds have been heard as a consequence of greater or lesser distance from the performer, interposition of obstacles, or other factors; the notes, themselves, also appear to be given in considerable variety. The sonic names are little, or not at all, further annotated here. Barrel-maker (Mass. The notes suggest resonant hammering.); Belcher-squelcher (Mass.); Bog Bull (New England); Bog Crane (Maine. Herons are often miscalled cranes.); Bog Hen (Maine, Mass. As a sizable bird seen about bogs.); Boomer (Mass.); Boom-pike (N. H.); Butter-bump (Mass.); Butter-munk (Maine. Also a British provincial name for the European bittern.); Dunkadoo (Mass.); Indian Hen (General. A sizeable bird conceived to be a "hen" of the Indians.); Marsh Hen (General in the north. A good-sized bird that inhabits marshes.); Meadow Hen (Maine, Mass. Consult the preceding note.); Night Hen (Mass. Possibly by confusion with the night heron.); Plum Pudd'n, Plunkett (Mass.); Post-driver (Mass. At a distance the notes suggest resonant pounding.); Pumper (Mass. To some the notes suggest sounds made by an old-fashioned suction pump.); Pump-er-gor (Mass.); Pump-thunder (Vt., Mass. See preceding note.); Slough-pup (Maine, N. H., Mass. Corruption of slough-pump."); Slug-toot (Mass.); Stake-driver (General. See note on Post-driver.); Stump-driver (Vt.); Thunder-pump (General. See note on Pumper.); Wollerkeroot (Mass.).

WHISTLING SWAN. Wild Swan (Mass.).

CANADA GOOSE. Big Gray Goose (Mass.); Black Goose (Maine. The head and neck, except for a white throat-patch, are black, but the remaining upper parts are brown or brownish gray.); Brant (Maine. Any goose may be called a brant.); Flight Goose (Maine. That is migratory goose; to distinguish Hutchins's Goose from the larger Canada Goose, which nests.); Goose (All); Gray Goose (Rather general, especially in older usage, Morton, 1637); Honker (Universal, sonic.); Long-necked Goose (Mass. For the larger Canada subspecies.); Short-necked Goose (Mass. For the smaller Hutchins subspecies.); Swan Goose (N. H. In allusion to its long neck; early use Edwards, 1750.); White-belly (Mass.); Wild Goose (Universal); Winter Goose (Maine. For Hutchins's Goose.).

AMERICAN BRANT. Brand Goose (Mass. An early form of brant; occurs in Charlton, 1671); Brant (General); Common Brant (Conn.); May Brant (Mass., Conn. Deemed by epicures as being in best order in the month of May.); Sea Brant (Mass.).

WHITE-FRONTED GOOSE. Cackling Goose (Mass.); Speckle-belly (General. The anterior under parts are dark-barred.).

SNOW GOOSE. Wavey (General in the northern United States and in Canada. A name of Indian derivation, applied more or less to all geese; it relates to vociferation of the birds, as is so evident in the Chinook form, *wa wa.*); White Brant (General); White Goose (Mass.).

MALLARD. Gray Duck. Gray Mallard (Rather general. Sometimes means only the female, but often applies to the species. Gray is an indefinite term in the popular vocabulary. In the male Mallard the center of the back is brown, finely cross-waved with whitish; in the female the back feathers are dark brownish, edged with buffy.); Greenhead (Universal). The head and neck of the adult male are iridescent green.); Mallard (Universal); Mallard Duck, Wild Duck (Mass.).

BLACK DUCK. Bay Duck (Mass.) ; Black (Maine, Mass. Prevailing color dusky or blackish brown) ; Black Duck, Black Mallard (General) ; Clam Duck (Mass.) ; Labrador Duck (Maine) ; Nigger, Nigger Duck (Conn. In allusion to its dark coloration.) ; October Duck, October Redlegs (Mass.) ; Old Winter Duck (Maine) ; Pond Black Duck, Puddle Duck, Puttylegs, Red-leg, Sea Duck, Spring Black Duck, Summer Black Duck, Summer Duck (Mass.) ; Wild Duck (All) ; Winter Black, Winter Black Duck, Winter Duck (Mass.). Some of these names indicate belief in the existence of two races, and these, indeed, were for some time authoritatively recognized. Later studies, however, indicate that the supposed distinctions are associated with degree of maturity and do not have taxonomic significance.

GADWALL. Creek Duck (Mass. From its preference for small waters.) ; Gray Duck (General. There is a good deal of slaty gray in the plumage of the male; the female is more brownish and buffy. The term "gray duck" is often applied to specimens of various species for which the handler knows no definite name) ; Speckle-belly (Mass. The speckling is rather on the breast and sides.) ; Widgeon (Rather general. This name is a sort of coverall for medium-sized ducks).

PINTAIL. Gray Duck (General. Often refers only to the female.) ; Gray Widgeon (Conn.) ; Long-neck (Mass. Also a British provincial name.) ; Pheasant, Pheasant Duck, Picket Tail (Conn. In allusion to the long pointed tail of the male.) ; Pied Gray Duck (Conn. The male, from its more contrasting colors.) ; Pintail (General. Also in British provincial use.) ; Pintail Widgeon (Conn. Early use Smellie, 1793) ; Sea Pheasant (Conn. Also in British provincial use, tracing back to Willughby-Ray, 1678) ; Sea Widgeon (Conn.) ; Spreet-tail (New England. That is, sprit-tail, in allusion, as are so many of this bird's names, to the long pointed tail of the male.) ; Sprig, Sprigtail (General. The latter also in British provincial use.) ; Water Pheasant (Conn.) ; Winter Duck (Mass. Also in British provincial use; Smellie, 1793).

GREEN-WINGED TEAL. Butterball (Maine. As being sometimes excessively fat.) ; Green-wing, Green-wing Teal (General. The speculum is green.) ; Mud Teal (Mass. It feeds much in very shallow water) ; Red-head Wigeon (Mass. The head of the male, except for a large green mask, is chestnut; "widgeon" is applied to many of the smaller ducks.).

BLUE-WINGED TEAL. August Teal (Mass. In autumn, it is an earlier migrant than the Green-wing.) ; Bluewing, Blue-winged Teal (General. The wing coverts, and in the male adjacent feathers, are light blue.) ; Butterball (Maine. See under the preceding species.) ; Summer Teal (Mass. An earlier fall migrant than the Green-wing, it sometimes comes in summer, i.e., August).

EUROPEAN WIDGEON. Gray Duck (Maine. Strange species of this family often are dubbed "gray duck.") ; Red-headed Widgeon (Mass. The head and upper neck of the male are chiefly cinnamon red) ; Widgeon (Mass.).

BALDPATE. That name and Baldpate Widgeon (Mass. Allude to the white-topped head of the male.) ; Ballie (Mass. Nickname for Baldpate.) ; Bluebill (Mass. The bill is grayish blue) ; Blue-billed Widgeon (Maine, Mass. Same note.) ; California Widgeon (Mass. In such names, the modifier usually denotes only a distinctive kind, and has no geographic significance.) ; southern widgeon, speckle-bellied summer duck, speckle-belly, summer duck, white-belly, white-belly duck (Mass.) ; widgeon (general).



ALLAN D. CRUIKSHANK FROM N. A. S.

Blue-winged Teal nest occasionally in Massachusetts and many are early fall migrants. It is popularly known as the Blue-wing and has a reputation for speedy flight.

SHOVELER. Broadbill, Shovel-bill, Shoveler (General. The last also a British provincial name. The bill is spatulate, suggesting these and other local names of the species.) ; Shovel-bill Duck (Conn.) ; Spoonbill, Spoon-bill Duck, Spoony (General).

WOOD DUCK. Widgeon (Maine, Conn. A general purpose name for the smaller ducks.) ; Wood Duck (General) ; Wood Widgeon (Conn. It frequents swamps and nests in tree cavities.).

REDHEAD. That name (General) and Red-head Duck (Mass.) allude to the reddish-chestnut head and upper neck of the male; Red-head Quindar (Maine, N. H. Meaning of quindar unknown).

RING-NECKED DUCK. Blackhead (Mass. Lumped with the scaups under this name, the Ring-neck justifies the application by the adult male's black head with metallic reflections.) ; Bluebill (Maine. Substitute in the last note "dark-slaty bill, with base and subapical crossband, white in life; pale blue after death.") ; Ring-bill Scaup (Mass.) ; Ringneck (Maine, Mass. From the narrow orange-brown ring about the neck of the male) ; Ring-neck Scaup (Mass., Conn.).

CANVAS-BACK. Can, Canvas (Mass.) ; Canvasback (General. Males have most of the back, sides, and flanks white, cross-waved with fine, zigzag lines of blackish, giving a light-gray effect, and suggesting the fabric canvas).

GREATER SCAUP DUCK. American Widgeon (Mass. Widgeon is a general-purpose name for medium-sized ducks.) ; Big Blackhead (All along the coast; "big" in contrast to the Lesser Scaup; the head and neck of the adult male are black with greenish reflections.) ; Big Bluebill (Rather general; "big" as in last term; the bill is dull blue in both sexes.) ; Big Scaup (N. H. See note on scaup below) ; Blackhead (A coast name. See under Big Blackhead) ; Black-headed Duck (Maine, Mass.) ; Bluebill (General. See under Big Bluebill) ; Blue-bill Widgeon (Mass.) ; Bluehead (Maine. A mis-

nomer; it is the Lesser Scaup in which the head feathers have a purplish gloss.) ; Broadbill (A coastal name. The inch-wide bill may be relatively broader than in associated species.) ; Greater Broadbill (Conn.) ; Quinder (N. H.) ; Raft Duck (Mass. In raftlike flocks when resting.) ; Scaup (Mass. This British term for closely related birds alludes to their feeding on scups or scalps, i.e., beds of shellfish; early use Latham, 1797; "scaup duck", Willughby-Ray, 1678; it has scant popular usage in America.) ; Troop Fowl (Mass. As a characteristically flocking species.) ; Widgeon (Mass., R. I. See first note under this species.).

LESSER SCAUP DUCK. Blackhead (All along the coast. The head of the adult male is black, with purplish reflections.) ; Bluebill (General) ; Blue-billed Widgeon (Mass. Explanations as under the preceding species.) ; Broadbill (A coastal name, lumping this form with the Greater Scaup, although the character is not so evident.) ; Cove Bluebill (Mass.) ; Little Blackhead (Along the coast. "Little" in contrast to the Greater Scaup; see note on Blackhead.) ; Little Bluebill (General) ; Little Bluebill Widgeon (Mass.) ; Little Broadbill (Conn.) ; Little Widgeon (Mass.) ; Quinder (N. H.) ; River Broadbill (Conn.) ; Scaup (Mass. See note under the preceding species.) ; Troop Fowl (Mass. Same reference.) ; Widgeon (Mass. Same note.).

AMERICAN GOLDEN-EYE. Brass-eye (Mass. The iris is yellow.) ; Brass-eyed Whistler (Mass. See note on Merry-wing further on) ; Golden-eye (General) ; Golden-eye Widgeon (Mass. Widgeon is generally applied to medium-sized ducks.) ; Great-head (Mass. The head is puffy with feathers.) ; Merry-wing (Conn. In allusion to the whistling sound made by the wings in flight.) ; Pied Whistler (Conn. The male from its more contrasting colors.) ; Quandy (All. The female.) ; Quindar (Maine, Williamson, 1832; N. H. Belknap, 1792) ; Sizzle-britches (Mass. In allusion to its speed or to the whistling sound made by the wings in flight.) ; Whistler (General. Also in British provincial use.) ; Whistle-wing (Rather general. Also in Irish local use.) ; Whistling Diver (R. I. Blagden, 1776-1780) ; Widgeon, Winter Duck (Mass.).

BARROW'S GOLDEN-EYE. Sea Whistler (Maine.) ; Whistler (General. From the whistling sound made by the wings in flight.).

BUFFLE-HEAD. Baldpate (Mass. In allusion to the white crown, which, however, is far from bald.) ; Bumble-bee Coot (Maine. From its small size and rapid wing motion; coot is applied generally to sea fowl along the New England coast.) ; Bumble-bee Dipper (Maine. Part of the preceding note applies; dipper means diver.) ; Bumble-bee Duck (Mass., Conn.) ; Butterball (General. From its sometimes being excessively fat.) ; Dapper (Mass. Diver.) ; Devil Diver (Maine. From its seemingly supernatural diving ability.) ; Dipper (General. Diver.) ; Dipper Duck (Mass.) ; Dopper (Mass. This also means diver.) ; Ghost Duck (Maine. See note on "Spirit Duck" further on.) ; Hell-diver (Maine, Mass. Facetious exaggeration of its diving abilities. A name more often applied to the loons and grebes.) ; Pintail Whistler (Maine. The tail is moderately pointed; "whistler" probably from association with the golden-eyes; this species makes no special whistling sound.) ; Pocket Dipper (Mass. That is, small diver) ; Robin Dipper (Maine, Mass. Another reference to its small size.) ; Skunk-head (Mass. from the very dark green (called black) and white coloration of the head of the male.) ; Spirit Duck (Mass. In reference to its "supernatural" ability in diving at the flash of an old-time gun or the twang of a bowstring, quickly enough to avoid the missile.) ; Winter Duck (Mass.).

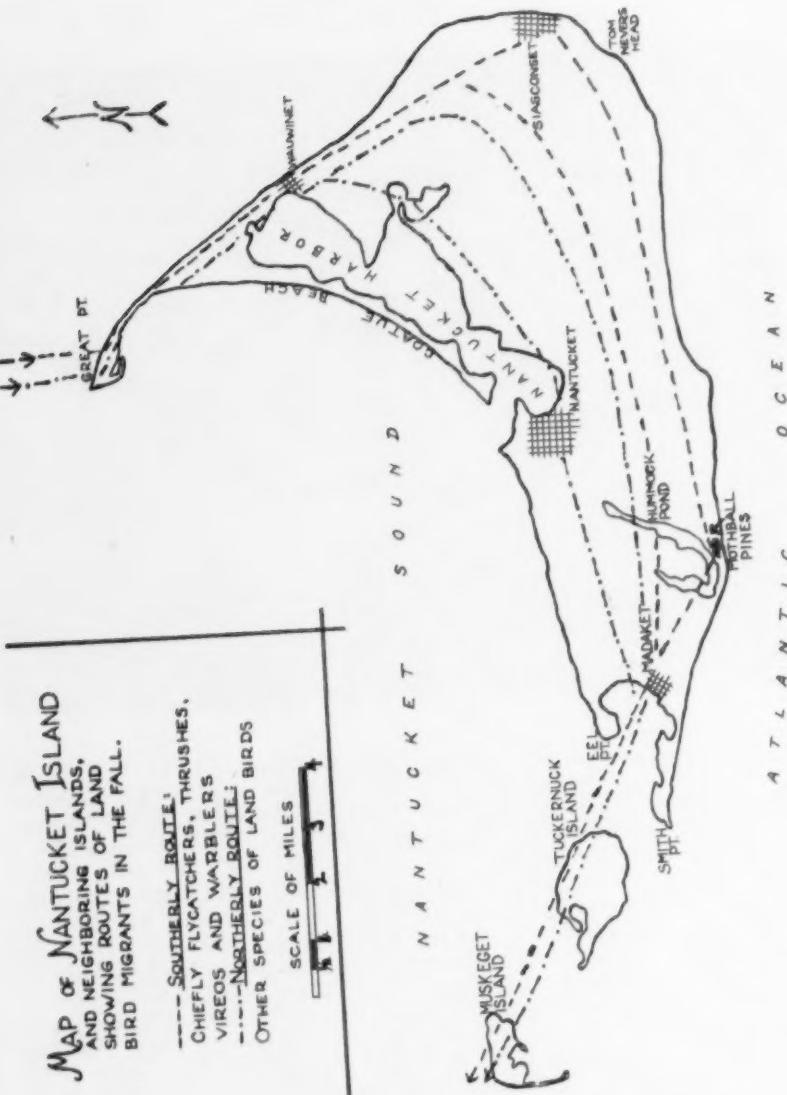
(To be continued in November *Bulletin*)

Gannets

BY MERRILL MOORE



During World War II, while serving in New Zealand in the Army of the United States, a friend took me to a small island near Auckland Harbor where Gannets breed. I have never seen anything like it in my life. An immense bird population was spread thickly over a small rocky hill, but each bird had its own place, and each mother bird seemed to know her own nest. I found them extremely tame. One could walk among them without causing any alarm on their part, merely mild curiosity. Visitors are infrequent. The birds are protected by the government and are immensely vigorous and clean. I did not find them any more noisy than Dock Square on Saturday night, when the market-place is going full tilt. There were Gannets in all stages of development, from the egg to the adult. They are remarkably striking-looking birds, with great dignity and classical beauty, as well as functional form. The thing that impressed me was the way they seemed adjusted to living together peacefully in large groups. We did not bring them any food, but simply looked at them and took pictures. I observed very little quarreling among them. Some of the nests were made of mud and litter, while some of the more enterprising ones had collected seaweed for that purpose. The picture accompanying this article tells much more than a thousand words ever could concerning the beauty and unique grace of these birds.



The Riddle of Fall Migration on Nantucket

Part I.

By JOHN V. DENNIS AND LEE JAY WHITTLES



ROGER T. PETERSON

The Brown Thrasher is listed in Birds of Nantucket as a rare vagrant — and irregular summer resident.

Cape Cod and Nantucket, Martha's Vineyard, and other islands off the southeastern New England coast are visible remnants of the great frontal moraines of the last ice age. At one time a terminal moraine stretched from Cape Cod and Nantucket along a line through Martha's Vineyard, Block Island, and Long Island almost to New York City. With the gradual rising of the ocean as the great icecap melted, only the highest hills remained above water. Some are now islands, others capes and promontories.

Geological change is still taking place, and quite rapidly. In places, at a rate of between five and eight feet a year, islands and the main coast line itself are being eaten away by the waves. Like icebergs slowly dissolving in the sea, the massive clayey cliffs of Martha's Vineyard, Nantucket, and the outer Cape are ever shrinking before the waves. Not all the sediment sinks to the bottom

of the ocean, for some of it reappears as sand bars, shoals, and small islands. Such creations often have but a temporary existence. Maps of the region quickly become obsolete.

Nantucket, a great crescent fifteen miles long and three to four miles wide, is the most southeasterly of all the islands and consequently the one most exposed to the fury of the open ocean. To the south the ocean stretches endlessly. Only the Bermuda group seven hundred miles away breaks the vast expanse. Twenty-five miles to the north lie the outer extremities of Cape Cod. Like a long finger reaching toward a thumb, Monomoy, an appendage of Cape Cod, stretches out to grasp Great Point, the northernmost extremity of Nantucket. The two fail to meet by about ten miles. Nantucket is like a bent elbow, the forearm pointing northward to Cape Cod and Monomoy, and the upper arm a limb dismembered from its connection on Martha's Vineyard by the action of water over the centuries. Muskeget and Tuckernuck, the two small islands to the west of Nantucket and separated by about six miles of open water from Martha's Vineyard, have also shared in the geological dismemberment, but they bear closer affinities with Nantucket than any other visible land remnant in the area.

The analogy to an elbow must not be taken too literally, however. The southern shore of Nantucket, devoid of capes or other abrupt features, curves more gently than a bent elbow. Anyone starting from the outer tip of Great Point with the purpose in mind of following the ocean shore line to the westernmost extremity of the island, Smith Point, will, before the end of his journey, have changed his course by almost 130 degrees. On the first stages of the trip he will be facing the southeast, and as he completes his journey he will be facing northwest. But at no point will the change in direction be sudden or drastic. So imperceptible are the changes along the shore line that he will seldom be tempted to take a short cut. However, if he had a bird's-eye view of the island, as might be obtained if there were fire towers here and there along his route, he would be tempted to take advantage of inland highways or the many jeep trails through the moors. If he preferred a more wooded countryside to the barren southern coast of the island, he would almost certainly turn inland at Wauwinet at the base of Great Point. For many miles as he trekked southwestward through the center of the island, he would have in view tangled growth of wild cherry, beach plum, and other deciduous shrubs and vines. This growth would alternate with extensive stands of pitch pine. Frequently he would come to marshy places and inlets from Nantucket Harbor. Midway between the eastern and western ends of the island, and on the north side, he would find the town of Nantucket. Its shade trees and fine old houses would perhaps offer a pleasant relief after the rough country he had been traversing. Leaving the town in a westerly direction, he would come to open fields, small patches of woodland, ponds, and more marshes. The town of Madaket at the western end of the island, lying between Eel Point and Smith Point, would be a suitable place to end his journey.

Had he conscientiously followed the great crescentic ocean beach, his trip would have been much longer and the scenery less varied. After leaving Wauwinet his coastal journey would have been interrupted briefly by a detour inland where Sachacha Pond enters the sea. After reaching Siasconset his course would veer increasingly to the southwest. By the time he reached Tom Nevers Head, a coastal bluff, he would be going due west. The change in



Map Showing the Relationship of Nantucket to Nova Scotia, New Brunswick, and the New England Coast. Banding stations in these areas would aid in determining the origin of land birds reaching Nantucket in the fall.

direction to the northwest would be so imperceptible that he would hardly be aware of it. Had he the advantage of a fire tower, say, near the small beach resort of Surfside, he would see pine woods to the north and west, several long narrow ponds ahead, each running in a direction from north to southwest, and everywhere else the rolling moors not so different from the ocean in appearance. One speck on the landscape might catch his eye, a tiny patch of pine woods four miles ahead, flanked on the north by a narrow pond, and a few hundred yards away to the south by the ocean. As it is, this landmark, known locally as the Mothball Pines, does not meet his eye until he is already past it. From the ocean beach the pines are invisible. But a few hundred yards westward the sand dunes disappear, and a traveler on the beach can see Hummock Pond and off to the right, at its edge, the pine thicket.

We might as well admit the fact that our friend, a young man of twenty, is ornithologically inclined and frequently trains his binocular upon passing birds. He is making a walking tour of the island in late August. The shore bird migration is almost at its peak, and the migration of land birds is well under way. He has already compiled a long list for the island. But, aside from some migrating warblers at Great Point and various birds of brambles and thickets near Wauwinet, his walking tour has not been very productive so far as land birds are concerned. In comparison he has done much better with the terns, gulls, shore birds and large waders. Although this is the third day of his tour, his enthusiasm is undiminished and the sight of the Mothball pines lures him inland. Perhaps, he decides, he can turn up a few new species here.

The pines, he finds, are an introduced variety, the black pine (*Pinus thunbergii*). Some appear to be self-seeded and average about waist-high; others, planted in neat rows, appear to be about twenty years old. Many of the older ones are twisted and broken by storms. The black pine, as he knows, is a salt-resistant species, but repeated exposure to spray from an ocean on occasion lashed by severe storms and hurricanes has apparently killed some of them. The total area, including that containing both young and older trees and intervening open spaces, is about two acres. Only two other woody plants are to be found, bayberry and a wild rose. A dirt road leading to a cottage bisects the grove and offers our young bird watcher a suitable place to rest and, at the same time, to see whatever birds the thicket may offer.

To his keen satisfaction, our friend finds the thicket alive with birds. Without having to change his position he can see five different kinds of warblers, two vireos, Red-breasted Nuthatches, a Wood Pewee, a Black-billed Cuckoo, and a Purple Finch. The birds, he finds, are procuring the one obvious insect species, a small gnat. They are usually taken in mid-air. Wherever the sound of clicking mandibles is loudest, birds are the most plentiful.

The birds show little awareness or fear of a human with a binocular. Unconcernedly they feed almost within arm's reach. Opportunities to check markings and verify identification are far better than average. Some of the warblers whose usual sphere of activity is high among the trees come to the ground to search among pine needles, or even come out into the sandy road.

Within minutes after his arrival, however, the birds have disappeared and our friend hears only the wind among the pines and the distant roar of the surf. Pulling himself together, he makes his way between the crowded tree trunks and shortly finds himself at the north edge of the thicket. The birds are feeding here momentarily. As he watches, several take flight and rapidly disappear over the pond. Others follow suit until none remain. The departures follow a characteristic pattern. Two or three to a dozen birds leave at a time. The first stages in their flight seem a bit uncertain. They veer first in one direction, then in another. But their general course is toward the northwest. When last seen they are heading directly toward the northwestern tip of the island, Tuckernuck and Muskeget. Flying rapidly upward at an angle of about 45 degrees, they are soon high enough so that the island, the ocean, the adjacent sounds, and distant coast lines must be as clear to them as any map. Our friend is envious. They will be over Madaket in a matter of minutes while he must plod wearily along sandy beaches for another hour.

As he is about to leave the thicket, and make his way back to the ocean, he catches sight of a small flock of warblers arriving in the thicket. They have come, so far as he can tell, from the east. Their course of flight suggests the same coastal route he has been following. The birds circle the thicket and alight among the smaller pines.

By now the thicket is so full of interest to our visitor that he decides to delay his departure. He is rewarded by seeing other arrivals and departures, and he adds several comparative rarities to his list — a Blue-gray Gnatcatcher, a Hooded Warbler, and a Philadelphia Vireo. The general pattern of events remains the same. Birds arrive from the east and always depart toward the northwest. They feed busily while in the thicket, and except for some special cases, all seem to leave within an hour or less.

A few birds seem to make their headquarters in the thicket, and our visitor surmises that they are island residents which have either nested here or settled here prior to making their fall migration. In this group are a pair of Eastern Kingbirds and an undeterminable number of Song, Savannah, and Grasshopper Sparrows. Sparrow and Marsh Hawks which fly near the thicket from time to time appear in their behavior more like island residents than transients. In addition, several of the species which can only be transients on the island seem in no hurry to move along. As can be told by oddities in their appearance, they pop up again and again and are still there when he leaves.

By now our young ornithologist is thoroughly confused. First of all, he was unprepared for such a spectacular migration on this the outermost of the offshore islands. He had heard that the island was occasionally a haven for strays or birds blown off-course from the mainland, but the almost time-table precision of arrivals and departures, the energy of the birds, and their unerring sense of direction all suggested that this was a normal everyday event. And highly confusing, too, was the fact that they were traveling northwest when they left the grove. Not one headed south out over the ocean. This non-seasonal direction of flight is most unexpected. Without maps or charts, these birds, even before they left the ground, apparently knew the route they would take. From all appearances they knew where they were and where they were going.

One other unusual aspect crossed our friend's mind as he started along the last stretch of beach before Madaket. Most of the species he had listed in his notebook for the Mothball Pines were ones he considered nocturnal migrants. Yet, here it was well along in the afternoon and a pronounced migration was in progress which included a diverse group of night-flyers, from flycatchers and warblers to cuckoos and Baltimore Orioles. Diurnal migrants and birds which are dominantly daylight flyers were, if anything, conspicuous by their absence. Blue Jays, Robins, Meadowlarks, Starlings, Red-wings, and Grackles were missing from the Mothball list. So were most hawks, the Chimney Swift, and the Common Nighthawk. After checking the list thoroughly, only two of the transients were spotted as typical diurnal migrants, the Barn Swallow and the Flicker. Other notable omissions from the check-list were most members of the sparrow tribe, and, in a general sort of way, birds typical of the open fields and birds which make their homes in brushland or garden edges.

After spending the night at Madaket, our friend pursued his way northward along the edge of Madaket Harbor. Ahead of him stretched Eel Point, a coastal feature like many others on the island, a headland of sand dunes and beach grass, and next to the water, salt marsh and mud flats. Before reaching the base of this point he noticed a final outpost of vegetation typical of the in-

terior. Among introduced pines, both black and white, was luxuriant growth of high-bush blueberry, sumac, grapevines, and viburnum. Making a detour of 500 feet from the shore line, he was in the midst of a thicket little more than an acre in extent. And, as at the last such spot, he was delighted to discover a large concentration of migrating birds.

He immediately recognized many of the species he had seen the day before. Were there among them, he wondered, individuals he had seen at the Mothball Pines? The distance, as a crow flies, between the thickets was only two and a half miles. But, in addition, there were many birds he had not seen at the other thicket, among them Catbirds, Brown Thrashers, Robins, Towhees, Chickadees, Mourning Doves, and Grackles.

For the first hour our friend was so occupied identifying species and estimating numbers that he gave little thought to the route of arrival or departure. But it soon became obvious that the same birds did not remain long. Keeping his eye upon a flock of ten or more Robins, he noticed them move toward the edge of the thicket and then take flight in a northwesterly direction toward Tuckernuck. They were followed by a Baltimore Oriole and several warblers. Other birds were also seen departing. All left in a northwesterly direction.

It was more difficult here than at the Mothballs to spot arriving flocks. Birds appeared without warning, and it was usually impossible to judge the direction of their incoming flight. In one instance a flock of nearly one hundred Red-wings was seen coming in from the east. Other arrivals seemed to be coming from the same direction.

Consulting his map of the island before he left the thicket, our friend made a tentative outline of possible migration routes. At three points he had seen migrating warblers — Great Point, the Mothballs, and Madaket. Might it not be logical, he reasoned, that the small nocturnal migrants on reaching Great Point, presumably from the outer Cape, kept to the outer perimeter of the island until they finally departed at the Madaket thicket? Birds of open fields and brushland, perhaps arriving along the same route as the warblers, would be diverted, he reasoned, by more suitable habitat and the better food-finding opportunities that exist in the northern half of the island. Wauwinet, he decided, would be the logical place for the two groups to part company. Low-flying birds of the brushland, Brown Thrashers, Catbirds, Towhees, and Flickers, attracted by berry-bearing shrubs and tangled growth along Nantucket Harbor, would be expected to take a southwesterly course until they reached the middle of the island; then their course would bear westward toward Madaket. Continuing along much the same route, but diverted more by occasional farming districts, would be such birds of the open country as Grackles, Red-wings, Starlings, and Mourning Doves.

Now to visit the science library maintained by the Maria Mitchell Association in the town of Nantucket and see what help could be obtained from literary sources.

(Part II will appear in the November Bulletin)

Books Needed at Ipswich River

If any member has the twelve-volume work *Silva of North America*, by Sargent, and should like to donate it to the library at Ipswich River Wildlife Sanctuary, it would be of great help in identifying the many rare and valuable trees that were planted on that property in earlier days.

How To Enjoy The Outdoors In October

BY RICHARD HEADSTROM

Note the coloring of the sumachs — how they glow in scarlet and gold which often deepen to crimson and orange.

Now that their nesting duties have been completed, the Blue Jays are unusually vociferous. Listen to their raucous cries as they speed through the woods giving warning of your approach.

Note that the daisy fleabane, whose kinship to the aster and the daisy is apparent at a glance, is still blossoming in field and along roadsides.

If you listen carefully on a warm sunny day you may hear the call of the Spring Peeper.

Note how the needles of the larch turn yellow and fall. The larch is the only conifer in our part of the country to shed its leaves annually.

If you live in the country or in a rural area, keep a neighboring cornfield or apple orchard under observation for migrating grackles. The birds frequently do some damage to apples by pecking at them.

Look for the gentian in a shady copse or along the woodland border. The blue of this all-but-rare flower strikes a contrasting note among the reds and yellows and browns of autumn.

Visit a pond or stream and note that dragonflies are still active, flying back and forth over the water and occasionally alighting on a plant stem.

Visit a rocky situation where you may find garter snakes congregating preparatory to crawling into clefts and fissures where they spend the winter.

Observe the pale Naples yellow of beech leaves — not all is scarlet and crimson on the autumn landscape.

If you live near the seacoast, watch for the arrival of Ipswich Sparrows. The best place to look for them is on the beach or in the dunes.

Note how the showy golden flowers of the bur marigold add a bit of color to cheerless ditches and similar swampy places.

As the air cools in October, snails crawl beneath stones or bury themselves in moss, leaves, or earth. Find one of these animals and note how it has spread a thin curtain over the opening to its shell. This curtain prevents it from drying out during its period of hibernation.

Watch a harvestman, or daddy longlegs, run over the ground, more particularly how it manages to make its way through thick grass without getting one of its long thin legs caught among the blades. Observe what happens if it should get a leg caught and it should find difficulty in extricating itself.

One of the highlights of the autumn scene is the ripening of the bitter-sweet berries. Look for the brilliant clusters on stonewalls, in copses, and along fence rows.

At this time of the year the fleecy white clusters of the wild clematis festoon woodland and wayside thickets and attract the eye wherever they are found. The decorative plumes have given rise to a number of popular names, old-man's-beard being perhaps the most apt. Examine a cluster under the glass and you will find that the withered styles, still attached to the seed vessels, appear like many twisted tails.

Keep an eye on a neighboring pond or stream for the reappearance of mergansers.

Be on the alert for ballooning spiders. Small spiders of certain species spin a cluster of silken threads and sail through the air on their silken parachutes.

Note the conspicuous clusters of the perplexing hypholoma on stumps and roots of deciduous trees. Although this mushroom first appears during the summer, it is more abundant at this time of the year. It is edible, if you like mushrooms, but not of very good quality.

Watch for the arrival of Tree Sparrows. Look for them in open country or, if you live in rural areas, about barnyards.

Among Our Contributors

JOHN V. DENNIS, a native of Leesburg, Virginia, became a member of the teaching staff of the Massachusetts Audubon Society in December, 1946, after his service with the Army Air Corps in China and India. He had earlier graduated from the University of Wisconsin, served as a ranger in Shenandoah National Park, and carried on field work for the Fish and Wildlife Service in Louisiana and Puerto Rico. After serving as director of Moose Hill Sanctuary after Mr. Taylor's retirement, he resigned to take up graduate work in ornithology at the University of Florida. He now operates a dairy farm in Virginia while he follows his ornithological interests through research and writing.

W. L. McATEE, born in Indiana, has been pursuing his biological studies, particularly economic ornithology and the food habits of birds, with the United States Department of Agriculture and the Fish and Wildlife Service from the time of his graduation from Indiana University to his retirement in 1947. He is a member of many organizations connected with ornithology, conservation, and wildlife management, and was awarded a "star" in the 1938 edition of *American Men of Science*. Ira Gabrielson has called him the most versatile biologist he has ever known. Long interested in the vernacular names of North American birds, Mr. McAtee possesses a unique power of attracting hawks and owls to him by imitating their sounds.

CLARENCE BIRDSEYE, a graduate of Amherst College, from which he later received an honorary degree in 1941, has been such a leader and expert in the field of dehydration and freezing that his name has become a household word almost synonymous with frozen food. He received his early experience in the field of natural history with the United States Biological Survey, now the Fish and Wildlife Service, and as a fur trader in Labrador. With his wife, Mr. Birdseye wrote the authoritative and delightful *Growing Woodland Plants*, his favorite hobby when not traveling being "woodgardening" at his home on Eastern Point in Gloucester.

LEE JAY WHITTLES, M.D., of Glastonbury, Connecticut, specialist in internal medicine, received his education at Wesleyan and Columbia Universities. A member of many ornithological organizations, he first became interested in the study of birds as a boy collecting for John Sage, author of *Birds of Connecticut*. Nantucket, where he spends his summers and serves on the board of managers of the Maria Mitchell Association, has proved an excellent locale, not only for his regular observations and intensive studies of bird migration, but also for his fine bird photography. He has photographed 190 species in color, including the first Black-headed Grosbeak observed in the eastern United States, and last year he made the first photograph of the Curlew Sandpiper in the Northeast. This photograph, with Dr. Whittles's account of the rare visitor, will appear in a forthcoming issue of the *Bulletin*.

Successful Workshop Completed



GORDON A. HICKS

Under the leadership of Miss Frances Sherburne, Workshop students and youth leaders of all ages study various phases of plant life.

Did you know that fishes make nests and watch over their eggs in them? Have you seen topsoil of the 1500's clearly defined in the pit left by a tree blown down in the great hurricane of that century? Have you ever found an Oven-bird's nest, or picked up a handful of garnets, or seen a pitcher plant trap an insect? Have you felt a bog quake as you walked over it, and watched trees five yards away quiver at your approach? Did you ever paint a tree with a mixture of sugar and beer, and then wait for the moths to flock to it?

This year, at the annual Conservation and Natural Science Workshop of the Massachusetts Audubon Society, 43 students and leaders from 12 states and 30 colleges discovered all of these wonders and many more. From the 15th to the 25th of June, Cook's Canyon Wildlife Sanctuary in Barre stirred with the interests and activities of this largest of Workshop groups. Miss Frances Sherburne, in charge of the teaching staff in eastern Massachusetts, and David R. Miner, resident director of the Sanctuary, helped plan an unusually absorbing and inclusive program, with the assistance of John W. Brainerd, Associate Professor of Biology at Springfield College. As well as many members of the regular Audubon teaching staff, such specialists as Hugh M. Raup, of the Harvard Forest; Rino Roffinoli, of the Soil Conservation Service; Leslie Campbell, of Quabbin Reservoir; and the Babitts of Petersham, lecturers and collectors of reptiles and amphibians for zoos and parks, contributed from their full stores. Proud of having produced another fine session of the Workshop, the Society gratefully acknowledges the co-operation of the Massachusetts Conservation Council and the National Wildlife Federation, which helped to make this possible.

M. B. S.

Chimney Swifts In South America

Our good friend Clarence Birdseye writes us from Paramonga, Peru, that he and his wife have been developing a local bird list covering the land and shore birds of the north central coastal area of Peru, and that their bird collection now numbers sixty-five species. They included in this list what they thought at first to be the first Chimney Swift ever taken in Peru from flocks that migrated to that section in large numbers. Their first specimen was taken from a flock of ten near the International Highway on November 1, 1954; and on November 6 thousands of the Swifts were reported and six collected by the curator of the museum at Trujillo, 250 miles north of Paramonga.

Mr. Birdseye's comments on the Swifts impelled us to check the earlier records of this species, which, although its migration across the Gulf to the southern hemisphere was long suspected, until 1944 it had never been definitely proved by a collection of specimens. Up to 1944 there had been at least seven records of Chimney Swifts collected in Mexico, and the species has also been observed in Hispaniola, and at least one collected on Tortue Island, on May 18, 1917 (Wetmore & Swales: *Birds of Haiti and the Dominican Republic*, pp. 260-261, 1931). A specimen had also been obtained from a flock of fifty noted on October 24, 1933, at Villa Quesada, District of San Carlos, Costa Rica, at an altitude of 2100 ft. (Smith, *Oologist* 51: p. 100, 1934). Two females were also taken at Eden, Nicaragua, on April 1, 1922 (Huber: *Proceedings Academy of Natural Sciences, Phila.* 84: p. 218, 1932). Further south, there have been several records from Panama — two collected on April 24 and 25, 1934, at Puerto Obaldia on the Caribbean coast of extreme eastern Panama; and two, on April 12 and May 14, 1937, respectively, on the Cricamola, about sixteen miles south of its mouth, both of these reported by Rogers (*Auk*, 54: p. 392, 1937; and 56: p. 82, 1939). In addition, a male and female had been taken at Cocoplum, Boca del Toro, Western Panama, on October 28, 1927 (*Auk* 48: pp. 119-21, 1931). One was taken on the Changuinola River, Panama, on October 24, 1926, and reported by Peters (*Bulletin of the Museum of Comparative Zoology* 71: p. 314, 1921). Chapman (*Auk* 54: p. 392, 1937) saw a "loose flock of forty swifts resembling this species on April 18, 1937, 2½ hours out of Cristobal and ten miles north of the Panama mainland near Puerto Bello." Still further south, swifts were reported from Santa Rosa, Colombia, in April, 1931 (*Auk* 62: p. 145, 1945). Flocks were seen in mid-November, 1944, over southeastern Ecuador (*Auk* 63: p. 445, 1946). E. Thomas Gilliard, of the American Museum of Natural History, also reported in the *Auk* for 1944 that he had noted thousands of what he took to be Chimney Swifts at Manaus, Brazil, on March 28-30, 1943.

Frederick C. Lincoln (*Auk* 61: pp. 604-609, 1944) indicated that 375,000 had been reported to the Fish and Wildlife Service as banded in this country up to 1944. Thirteen banded Swifts were collected by Indians in late November or early December, 1943, and the bands returned to Washington through the American Embassy at Lima, Peru. The place where they were found was about one thousand miles in direct airline west of Manaus, Brazil, where Gilliard had reported them, the spot being on the Yanayaco River, the region between the Putumayo and the Napo Rivers in Peru. It is interesting that the birds had been banded in Ontario, Connecticut, Illinois, Georgia, Alabama, and Tennessee, one each from all except Tennessee, which had eight, in the years 1936-1940, thus making them from at least three to seven years of age.

C. R. M.

Adult Education Program Gets Under Way

The enlarged Adult Education Program being sponsored by the Massachusetts Audubon Society for the season of 1955-56 opened at Rocky Knoll Sanctuary, Milton, on Tuesday, September 20.

All courses scheduled have a twofold purpose: first, to develop by direct observation an awareness and appreciation of the intricate balance of all living things and by guided interpretation of these findings to increase knowledge and enjoyment of the out-of-doors, and, secondly, to encourage all students to share their learning either through formal leadership or by radiating their personal enthusiasm.

The courses offered this season are as follows:

"The Three Kingdoms"	Tuesdays, 10:15-11:45 A.M.	Sept. 20-Nov. 22	Rocky Knoll
"The Web of Life"	Wednesdays, 10:15-11:45 A.M.	Sept. 21-Nov. 30	Rocky Knoll
"The Web of Life"	Thursdays, 7:30-9:00 P.M. (and three Saturday field trips)	Sept. 29-Nov. 10	Audubon House
"The Ecology Workshop"	Organizational Meeting 7:30 P.M.	October 5	Audubon House
	Saturdays, 10:00-3:00	Oct. 15, Nov. 19, Dec. 10, Jan. 7 Apr. 7, May 5	
	Saturdays, 2:00-4:30	Feb. 4, Mar. 3	
Bird Study Course	To be announced		Audubon House
Elementary Bird Identification	To be announced		Audubon House
Elementary Bird Identification	Tuesdays, 10:15-11:45 A.M.	Starting January	Rocky Knoll

"The Three Kingdoms" is a general conservation and natural history workshop on the elementary level, designed to acquaint the student with the natural world about him. Subject matter is considered on the broad basis of association of all living things. The use of simple keys for identification is introduced.

"The Web of Life" is a continuation of the elementary course, special emphasis being placed on specific identifications in varied groups of the living and non-living worlds.

In both courses each meeting will feature a different branch of natural history, with special reference to seasonal aspects.

"The Ecology Workshop" is a more advanced approach, which explores various phases of the world about us. This season's study will include identification of native shrubs.

All courses are covered in ten meetings, including the field trips which are planned to suit the convenience of the majority of the students.

The fee for each course is \$8.50, with transportation expense, by private car or public facilities, additional.

Evening meetings are held at Audubon House, Boston. Morning meetings are held at Rocky Knoll Sanctuary, Milton, unless otherwise indicated.

Miss Frances Sherburne will conduct all courses listed with the exception of the Bird Study Course, which will be given by Mr. Robert Grayce. Further information and registration blanks may be obtained on request.

Recreation Through Learning

BY MARJORY BARTLETT SANGER

Photographs by Gordon Hicks



"Camps in general offer the advantage of physical recreation," wrote David Miner in a recent *Bulletin*, "but Wildwood has something truly rare, for here are youngsters who choose to find recreation through learning."

At the Massachusetts Audubon Society's Cook's Canyon Wildlife Sanctuary in Barre over one hundred boys and girls this summer chose to find such recreation. Wildwood Nature Camp, created and directed by members of the Audubon staff, offers to young people between the ages of nine and fifteen a unique form of camp life, where guided explorations in the out-of-doors and an ably supervised natural history workshop take the place of an organized sports program. From the first evening, when a game called "The Five Senses" is played to illustrate that the world of nature is something to be touched and smelled and listened to and even tasted, as well as seen, to the last night around the council fire, an instantaneous and complete response to the idea of Wildwood is apparent. This response is in the eyes of the campers as they spot a Salamander under a log; it is in their voices as they cry "Monarch!" and pursue the butterfly to band and release; it is in their hands as they feed a baby Chimney Swift, and in their feet as they climb the side of the canyon to find rock tripe or feldspar or a Phoebe's nest.

Some of the children know only a little about nature when they come to Wildwood. These want to learn everything, and all at once: "What bird, what tree, what snake is that?" Others know more, and come to specialize in the field of their greatest interest. These ask different questions: "Would you have time to look over my project this afternoon?" "Could I hunt for the Massachusetts fern in my free time today?" Many review from the year before, greeting familiar species as old friends, wondering about others: "I did know that plant; it's in the composite family, isn't it?" or "I remember now, a Prairie Warbler. It couldn't be anything else with that song."

A boy from New York City stood listening to a Hermit Thrush for the first time. "It's like a person who doesn't know anything about music and just sits down at the piano and plays a beautiful tune." And a girl from Newton knelt by the edge of a rocky stream where she had just found the cardinal flower in bloom. "Going into the outdoors is like reading a brand new story," she mused, half to herself. "You never know what's going to happen next."

Days begin early at Wildwood. A bird walk must start at six o'clock if the birds are still to be heard in their morning chorus. The needles in the pine woods are bent with dew, and spider webs, spun across them, shine in the rising sun.

Thus began an article on the front page of the *Barre Gazette* this summer. The *Worcester Telegram* sent a reporter and photographer to Wildwood, and so did the *Christian Science Monitor*. All were eager to see at first hand how a camp which emphasizes nature, and only nature, can hold the interest and appeal that Wildwood has for boys and girls, not only from day to day and week to week, but also from year to year. And what they observed they sent out to their readers in lines that seemed to capture the Wildwood spirit. "A boy or girl who comes upon an exotic chalk-white Indian pipe for the first time along the pine-needle floor will want to pass that way again," wrote Betty Driscoll Mayo in a Saturday *Monitor* that took word of Wildwood all around the world.

What is the spirit of Wildwood, what is that "something truly rare?" Perhaps part of the answer may be found in lines like this from the mother of a camper from Buffalo: "To let you know how much Ellen enjoyed her two weeks, please count her in for next year -- plus her brother Mark." And part may also lie in a father's report of his boy who "has talked about nothing but your camp since he came home, and already turned our back yard into a wildlife sanctuary."



But there is another part that is not so easy to put into words, that may be found in subtler things — in the expression of two boys as they share together the joy of a discovery, in two girls who examine a bird feeder they have made, or in the child on this month's *Bulletin* cover who holds for the first time a turtle in her hand. For here, in picture as in actuality, is the primary and fundamental response to Wildwood's rare ideal of recreation through learning.

Natural History Studies at Cornell

BY ROBERT A. HELLMANN

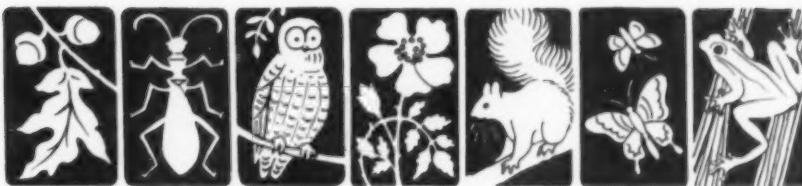
The New York State College of Agriculture at Cornell University offers several programs in natural history and conservation. In preparing men and women for professional work in these fields, Cornell has tried to develop a combination of practical professional training and broad liberal education, in order to meet the individual needs and interests of each student. We can best see how this works by brief descriptions of the programs of study.

Students majoring in conservation must take elementary botany, zoology, geology, chemistry, and physics. Certain advanced courses in botany and zoology are also required, as well as such courses in conservation as ornithology, natural resources, and taxonomy and natural history of the vertebrates. If a student wishes to specialize, he may pursue any of four curricula — vertebrate zoology, wildlife management, fishery biology, or conservation education — but certain courses pertaining to the curriculum of his choice are required in addition to the above. However, a large number of elective courses are available to the student, and there is no set program for any one year of his college work. Instead, he arranges his own program under the supervision of his advisor, as in a liberal arts college. Required courses are kept at a minimum consistent with technical training, so as to allow each student to follow his own interests wherever they may lead him.

Students majoring in rural education may design their own programs so as to prepare themselves for educational work in museums, parks, and independent conservation organizations. Such students have somewhat similar course work as conservation students, but with training in educational methods replacing some required advanced science courses. As in conservation, the students in this department plan their own programs to suit their own needs and interests. Upperclassmen in both departments may carry on special problems of their own for credit under the guidance of a faculty member.

The location of the university offers fine opportunities for additional studies in natural history on the campus. Two streams, punctuated with waterfalls, have cut deep shale gorges through the campus. There are fossils in the gorges, as well as interesting plants along the gorge walls. The campus overlooks Lake Cayuga, a long lake deeply gouged by the glaciers of the ice age. A few miles to the northeast of the campus Cornell owns the Sapsucker Woods Bird Sanctuary, a haven for birds and students alike.

In a word, it is the aim of Cornell to make available to the students as large an array of resources as possible and to allow each student to develop in his own way, but at the same time to insure requisite professional training in conservation. It is my opinion that the principle is a sound one and that, although improvements could be made, the results are good.



The Audubon Education Program In Massachusetts

BY FRANCES SHERBURNE, *Director of Education, Eastern Area*

The goal of the education program of the Massachusetts Audubon Society is to awaken and develop in as many individuals as possible an awareness of our natural resources and wildlife heritage and its conservation and restoration needs.

Recognizing that probably maximum progress can be accomplished through education at the elementary level, a large portion of our educational activity is devoted specifically to the following pursuits for that age group:

I. DIRECT APPROACH TO YOUTH

- (a) School courses are conducted by a staff of twenty-five teachers in nearly five hundred classes, primarily on 5th and 6th grade level — though some lower grades are included.
- (b) At each established sanctuary with resident director a natural history day camp for boys and girls is operated during the summer months. There are usually three two-week sessions, for different age groups, and from ten to fifty-five registrations are received for each session.
- (c) Wildwood Nature Camp, a resident camp for boys and girls, operates for six weeks. Planned for varying age groups, it provides special training for young naturalists.
- (d) Promotion of Audubon Junior Clubs. Conservation and natural history programs are carried on through schools, camps, churches, and various youth groups.
- (e) A special program is offered for day camps in the vicinity of Boston. A member of the Audubon teaching staff visits a camp once or twice a week and presents natural history material particularly suited to the needs of the camp visited.
- (f) A limited number of school assembly programs are presented to encourage interest in outdoor exploration.
- (g) A Saturday nature craft workshop for youth has been set up experimentally at Rocky Knoll Sanctuary, Milton.

II. INDIRECT APPROACH TO YOUTH

Hundreds of young people are reached yearly through our adult courses in leadership training and for individual instruction.

(a) *Leadership Training*

1. The Conservation and Natural Science Workshop, a ten-day resident session, is conducted in June specifically to train nature counselors for camp and youth group leadership.
2. A Nature Counselors Day Camp Training Course is conducted at Pleasant Valley Sanctuary.

3. Several teachers workshops, consisting of five or ten meetings each, have been presented in different Massachusetts communities or at Audubon sanctuaries.
4. Frequently Audubon teachers assist in the leadership training courses of other organizations, such as scouts, campfire girls, day camps, recreation conferences, camping organizations, and teachers colleges.

(b) *Educational Activities Which Include Leadership Training*

1. Courses at Audubon House or Rocky Knoll.
 - a. Bird identification courses on elementary and intermediate levels.
 - b. Bird study courses on an advanced level, stressing taxonomy and ecological distribution.
 - c. General natural science and conservation courses on the elementary, intermediate, and advanced levels, now known respectively as "The Three Kingdoms," "Web of Life," and "Ecology Workshop."
2. Extensions of the above courses in various communities, sponsored by sanctuary committees, local garden clubs, bird clubs, hospital rehabilitation programs, or interested individuals.
3. Courses in bird identification, natural science, and conservation conducted by Audubon staff members for other adult education centers.
4. Campground Conservation Service. A specialized service available through the Massachusetts Audubon Society to survey the nature education resources of camp areas.
5. Through personal conferences, youth group leaders receive general and specific recommendations for conducting interesting and effective conservation and natural science programs.

More informal avenues are pursued to reach all age levels through:

1. LECTURES:

- (a) Audubon Nature Theatre brings nationally known lecturers, explorers, and nature photographers annually to towns and cities throughout Massachusetts.
 - (b) Illustrated lectures at a moderate fee are presented for educational entertainment to clubs and other groups by qualified members of the Audubon staff.
 - (c) Slide lectures, composed of the same fine material that Audubon teachers use, may be rented for many purposes.
2. Monthly field trips and three campouts yearly to meadow, forest, pond, and shore are organized to show at firsthand the variety of nature's wildlife, with an emphasis on birds and their environment.
 3. State-wide bird walks, held in over one hundred towns throughout Massachusetts in May, enable all persons interested in nature to explore their neighborhoods with a qualified member of the Society.
 4. Public Garden walks in Boston are conducted by members of the Audubon staff every weekday at noon during the height of the spring migration.

5. Television program "Discovery," on channel 2, brings to your living room the freshness of the out-of-doors as presented by an Audubon teacher.
6. Informative exhibits are arranged at Audubon headquarters and at sanctuary museums, and in co-operation with other organizations.
7. Thousands of informational sheets are distributed to groups, free of charge, for project work, such as the building of birdhouses or simple bird feeders or the identification of mammal tracks or animal homes. Many educational pamphlets are supplied at cost.

Audubon House in Boston, the new educational center in Milton, all Audubon sanctuaries (which are education centers for their respective areas), and all Audubon staff members are sources of information or help in securing materials for conservation education.

"Discovery" Continues on Television

The Lowell Institute's WGBH-TV program "Discovery," sponsored by the Massachusetts Audubon Society and the Children's Museum, and conducted by Mary Lela Grimes, has evoked high praise for the excellent series given Friday afternoons during the summer months. *The Christian Science Monitor* in July had this to say about the program: "Mrs. Grimes' show on the life cycle of a Cecropia Moth, showing a moth emerging from a cocoon under a microscopic lens, was a TV highlight for anybody's station. Probably Mrs. Grimes uses the TV medium better than any other WGBH-TV star so far."

Undoubtedly the September programs just completed, including one on butterfly banding, in which Miss Ivy LeMon of the Audubon staff participated, scored in similar fashion.

Such commendation for educational TV presentations should encourage Audubon members and their friends and neighbors to tune in WGBH-TV at 6:00 P.M. each Friday to enjoy the programs listed below:

Every Friday, 6:00 p.m., Channel 2, WGBH-TV

- | | |
|------------|---|
| October 7 | "The Three Kingdoms" — The differences between the world of plants, animals, and non-living things. |
| October 14 | "Meet the Snakes" |
| October 21 | "The World's Prize Packages — the Seeds." |
| October 28 | "Friend or Foe, the Hawks and Owls?" |

A Maine law effective August 20, 1955, now protects all hawks and owls except the Great Horned Owl. We are glad to see our interesting winter visitor the Snowy Owl protected by our neighbor to the north.

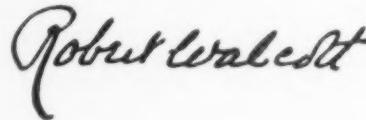
THE PRESIDENT'S PAGE — Continued from Page 306

Because in San Francisco a success has been obtained by a municipal garage, available from several different exits and entrances, under a hill so steep that it could almost qualify as a small mountain, some persons have been led to suppose that a public garage would be useful to the general public if located under Boston Common. Conditions are very different here, especially as to the water level, which is important, not only for the roots of the trees, but for the underpinning piles on which buildings in the filled land of the Back Bay rest. If water does not cover the piles they rot on top and the building will sink. Some of our members will recall the discovery of the ancient Indian fish traps, the existence of which was unknown until it became necessary to drive deep piles for the building of the New England Mutual Life Insurance Company.

The *New Yorker*, in its issue of July 30, 1955, devotes the first page of "The Talk of The Town" to the expression of the hope that Robert Moses, Commissioner of Parks, may not erase the "Ramble" — of shrubbery and swamp in Central Park — and closes with the following:

"Robert Cushman Murphy, birdman emeritus of the American Museum of Natural History, wrote a letter to the 'Times' not long ago on this subject. Mr. Murphy made the following statement: 'There is probably no equal area of open countryside that can match the urban-bounded Ramble with respect to the concentration of birds that funnels down from the sky just before daybreaks of spring.' Think of it! This minuscule Manhattan wildwood taking first place in the daybreaks of spring! It is no trick to outfit a public park for our winter mornings, our fall afternoons, our summer evenings. But the daybreaks of spring — what will substitute for the Ramble when that happy circumstance is tossed away?"

Although the Boston Public Garden has no "Ramble" or any uncultivated district, it is still the best birding ground within the original limits of Boston (See *Birds of the Boston Public Garden: A Study in Migration*, by Horace Winslow Wright, 1909.).

**Audubon Field Trips**

SUNDAY, OCTOBER 16. To Newburyport, the Artichoke, Rice Marshes, and other points in Essex County, for late migrants. Leaders: Miss Eleanor Barry, Davis Crompton, Dr. William E. Davis, and C. Russell Mason. Chartered bus will leave Audubon House, 155 Newbury Street, Boston, at 8:15 A. M., returning to Audubon House at approximately 6:30 P.M. Bring lunch. Fare and guide fee, \$3.00. Fee for those using private cars and following bus, 75 cents per person. Reservations should be made a week in advance. Cancellations cannot be accepted after noon on Friday, October 14.

SUNDAY, NOVEMBER 20. To Newburyport and Cape Ann. Leaders: Bennett Keenan, Bertram Leadbeater, Davis Crompton, and C. Russell Mason. Chartered bus will leave Audubon House, 155 Newbury Street, Boston, at 8:15 A. M., returning to Audubon House at approximately 7:00 P. M. Bring lunch. Fare and guide fee, \$3.00. Fee for those using private cars and following bus, 75 cents per person. Reservations should be made a week in advance. Cancellations cannot be accepted after noon on Friday, November 18.

Birds Round The World On Postage Stamps

No. 5. Hawks of Liechtenstein

By C. RUSSELL MASON



While postage stamps through the years have shown in their designs many examples of eagles, most of them stylized, like single-headed or double-headed forms as symbols of might, it remained for the little principality of Liechtenstein to issue a fine series of airmail stamps and one for regular postage depicting several species of hawks, eagles, and vultures.

Liechtenstein's location in the mountainous region between Austria and Switzerland would seem to provide the air currents that so many of this group of birds favor for their soaring and gliding.

The Liechtenstein government assured excellence of design and workmanship for their airmail series by securing the services of one of the finest bird artists of Europe, Hessheimer, and of the world-famous printing firm of Courvoisier, responsible for so many of the beautiful stamps of Switzerland.

Since apparently no instructions were given to the artist to represent certain species, some of the hawks are difficult to identify. One ornithologist has said of the drawings that they "show a mixed bag of unnatural creatures." However, for beauty of design of birds on postage stamps they may be rated among the best.

Four of the airmails (Scott's numbers C9, 10, 11, 13) show the Golden Eagle, *Aquila chrysaetos*, whose large size and magnificent flight bring forgiveness even from the hunters for the number of hares and ptarmigan upon which he pounces. The habitat of this bird ranges from the barren mountains and mountain forests to cliffs along the sea and to open country, though it picks rocky ledges upon which to nest. A regular postage stamp of Liechtenstein (Scott's number 225) also shows the Golden Eagle, the design in this case being by a Liechtenstein naturalist-artist named Seeger, who for years has been an art professor in Vienna.

One of the airmails (Scott's C12) shows a family of Ospreys at the nest, the same species as found in this country, *Pandion haliaetus*. The Fish Hawk is easily recognized by its gleaming white under parts, black wrist-patches, and the bow in the wings, all of which show plainly as it flies over ponds in search of food.

Two more of this series show an accipiter, probably intended for *Accipiter gentilis*, the Goshawk. It is not shown correctly on C21. Prince Jacky of Liechtenstein, with whom we have had correspondence on this subject, tells us that the artist has shown a Goshawk of "unknown origin," since *gentilis*, whether adult or juvenile, should have many more markings on the under parts. He also believes that C20, showing a Goshawk chasing a pigeon, may have a political connotation, representing perhaps an evil enemy chasing a dove of peace.

Scott numbers C22 and C23 show a Bearded Vulture, or Lammergeier, *Gypaetus barbatus*, which Prince Jacky



claims was exterminated in the area at least one hundred years ago. This species, however, recently turned up in Austria about one hundred and fifty miles away. One of the drawings was taken from a picture post card of a mounted specimen issued in Switzerland about 1900. The Lammergeier is more like a huge falcon than a vulture, with long narrow wings and a wedge-shaped tail, dark above, light below with rusty markings, and dark underwings. Its creamy-white head has a black patch extending forward from the eye to a prominent bunch of black bristles below the bill. According to Roger Tory Peterson and his collaborators in their *Field Guide to the Birds of Britain and Europe*, the Lammergeier is found only in remote mountain ranges, where it nests in caverns on precipices.

Wild Flower Society News

The New England Wild Flower Preservation Society has moved into a charmingly decorated spacious new office on the mezzanine in Horticultural Hall. Mrs. Bigelow Green, known to many *Bulletin* readers when she was in the library of the Massachusetts Horticultural Society, is there Monday through Friday from nine until five and cordially invites Audubon members and friends to come in and make use of the reading room and its reference material. Mrs. Lucien B. Taylor, President of the Society, and Mrs. Green will be happy to help with the planning of school and garden club programs on wild flowers and will answer questions by mail or in person on problems pertaining to native plants, their culture, identification, and conservation.

The Society is announcing at this time a new adult lecture "A New Slant On Wild Flower Conservation," illustrated with forty-eight kodachromes on wild flowers in their native haunts. This is available for \$15.00, plus handling charges.

The next field trip sponsored by the Wild Flower Society for members and their guests will be held on October 22. The plans are to meet at the holly farm of Wilfrid Wheeler in Hatchville, on Cape Cod, at 11 A.M., bringing a box lunch. Mr. Wheeler will conduct the group over his farm and demonstrate ways of propagating and cutting holly. If time permits the group will then go to The Lowell Holly Reservation in Mashpee and Sandwich, where there is another outstanding grove of holly, as well as of beech, maple, and birch.

Fall classes in plant identification for members of the Wild Flower Society will be given by Mrs. Lucien B. Taylor in the new office on Wednesdays, November 2, 9, 23, and 30, from 2 to 4 P.M. There will be, in addition, a field trip for members of these classes, the date to be set to suit the convenience of the group. The fee for the five meetings will be \$4.00. To register, or for further information, write Mrs. Green at Horticultural Hall, or telephone KENmore 6-7711.



SANCTUARY NEWS

Summer found the sanctuaries buzzing with the activities for which they had been preparing much of the year. Interesting at all seasons, and lovely in all phases, it is impossible to single out one period at which they seem to come into their own. But it is a fact that more people visit and enjoy the sanctuaries during the summer months than at any other time of year.

Camps come first on the sanctuaries' summer programs, day camps at Moose Hill and Pleasant Valley, Cook's Canyon, Arcadia, and Ipswich River, and the resident Wildwood Nature Camp at Cook's Canyon. All of these were fully enrolled (one hundred and fifty boys and girls at Moose Hill Day Camp, registered from fifteen towns and four States), and in spite of an unprecedented number of ninety-degree days, the programs, revolving about morning field trips and afternoon nature crafts and projects, were carried out with typical Audubon enthusiasm. Fine staffs, drawn largely from the Society's own teachers, helped to maintain this spirit and to produce the most successful camping season yet.

At Cook's Canyon the Workshop for leaders was conducted in June, and to Moose Hill a dozen counselors came for a period of precamp training, at which time excellent co-operation was had from Douglas Sands, director of nature activities at near-by Camp Wonderland. Trips scheduled at Moose Hill sent the campers to a variety of destinations: the Sharon fire tower, Dragonfly Pond, the Morse cranberry bog, and Massapoag Lake. Finds ranged from the commonplace to the rare and exotic, every woodland trail and reed-fringed pond revealing new and charming forms of life. And every one provided a springboard for stories and discussions leading to a fuller and better understanding of the camper's world around him. "The inevitable result of such a program," wrote Albert W. Bussewitz, "is the development of a conservation consciousness that carries on well beyond the end of the camping season."

A class of Boston University students under the direction of Dr. John Read visited Moose Hill and observed the day camp activities there.

At Arcadia an especial interest in crafts was a great factor in the rewarding program there. Excellent work was done with butterflies and minerals in particular, including the permanent mounting of specimens. Projects were carried on with ozalid and ink printings, coping saw work, and the carving of soapstone. Drawing on the field of nature for craft materials (long an Audubon ideal) has more than proved itself worth while at all the sanctuary camps, and the resulting articles exhibited at the end of each session have been outstanding for their beauty as well as their usability. Nature once more has shown herself adaptable.

An overnight camping experience was "an 'owling success,'" writes Edwin Mason, "with both the Great Horned and Screech Owls calling. All campers turned moth-ers for the night, attracting these interesting nocturnal insects with a bait compounded with stale beer and sugar."

Not only children enjoyed the sanctuaries in summer. David Miner noted an increased use of the trails by adults, and attributes this to the recent increase in publicity about Cook's Canyon. Several newspapers have lately carried full and pictorial accounts of activities there. The evening walks at Ipswich River on Thursdays in May and June continued to be popular. Participants watched such memorable occurrences as three American Bitterns fluttering about the hilltop field, a flock of over one hundred Black Ducks circling the marsh, and thirty-six Nighthawks dashing about the evening sky. Baltimore Orioles perched in the white lilacs, Bobolinks on the wild mustard, and Scarlet Tanagers moved through the fresh green of the beech leaves. And the clammy locust made a pink haze against the June sky.

Hummingbirds at Gstell feeders were a feature all summer at Arcadia. As many as four were seen at one time. The sweet syrup also attracted Baltimore Orioles and Catbirds. The hummingbird planting at Cook's Canyon was a vivid band of color from month to month, drawing many hummers, as well as monarch butterflies. John Kieran sent a hummingbird to the infirmary at Ipswich River, where it was company for a Screech Owl.

A long midsummer drought was hard on some of the wildlife food and cover plants at Arcadia, especially on the ones set out last spring. Crescent Bank, however, came through in excellent shape, thanks to its sawdust mulch. Many of the dogwoods in this new planting flowered and fruited. Herbiciding operations for the control of woody plants were carried on at the sanctuary in July by Richard Tatlock, grandson of the founder of Harvard Forest. These control measures were planned to increase the number and value of the berry-bearing plants in several areas, as well as to give growing space to shrubs and trees introduced to supply wildlife food. Arcadia received as a gift a collection of the newer day lilies from Stephen Modena, of Easthampton, to be used as ground cover plants for a group of trees from the Orient. Another gift to Arcadia was an assortment of canes made from native woods. Donated by Mrs. Joseph Gosende, of Springfield, the canes were carved by her late husband from ash, hickory, maple, and sassafras found in the Hampden area.

As usual, interesting birds were recorded during the summer by the swelling numbers of observers. Wildwood campers compiled their annual list of many species. The Northern Water-Thrush sang throughout June and appeared often during July and August at the foot of the canyon falls. A Prairie Warbler — a species missing for several years — was also listed.

In July a Mockingbird, a new species for the sanctuary, turned up at Ipswich River. This bird gave an imitation of a Whip-poor-will that was particularly startling.

Early August saw a movement of Kingbirds at Arcadia which indicated the possibility that migration was under way. The Woodcock was heard at dusk repeating his spring performance. At the same time Yellow Warblers and Indigo Buntings, as well as molting Purple Finches, were regular visitors around the headquarters. And Rose-breasted Grosbeaks came all summer long to the Cook's Canyon feeders.

Rocky Knoll, relatively quiet during the summer, will offer a fine selection of courses and activities this fall. Films and nature walks, crafts and discussions, as well as adult lectures, are being presented. Complete information about this series is listed elsewhere in the *Bulletin*.

Alvah Sanborn wrote from a well-earned vacation at Islesboro, Maine, that the past summer had been the hottest and driest in many years in the Berkshires. Yokum Brook dried up completely on the surface, although there was underground flow. The Beavers allowed the main pond to dry up, but maintained several ponds at the north end of the sanctuary.

Of particular interest at Pleasant Valley was a Sooty Tern, blown in to Pontoosuc Lake by a storm on August 14. Brought to the sanctuary, this rare find lived for several days, the first record in Berkshire County since 1876. The specimen has been mounted.

Field trips at Pleasant Valley on Thursday and Sunday mornings in July and August were attended by small but enthusiastic groups of people. An immature Hooded Merganser was seen on the Beaver Ponds, July 23. Large numbers of visitors and groups — mostly summer campers — visited the sanctuary, and the Barn Restaurant had a good season. Here, as at the other sanctuaries, a most successful camping session was held. The Explorers Club started off the day camp season with the largest registration yet. Highlights of this session were the overnight campout at the Savoy State Forest, a Turkey Vulture nest-hunting trip in Tyringham (where a Porcupine was found in a tree, but no sign of Vultures), and a two-night trip to Mount Greylock. The boys were particularly delighted with the gift of a mother Opossum with four young in her pouch. The first regular day camp session had twenty-four enrolled in an experiment to see if the camp could be doubled in size. This session, with staff also enlarged, proved very successful, but the question of any permanent doubling of enrollment has not yet been decided.

M. B. S.

A. O. U. To Meet In Boston

The Boston Museum of Science will be headquarters for the 73rd stated meeting of the American Ornithologists' Union, to be held in Boston, October 25-30, 1955. The Massachusetts Audubon Society, the Nuttall Ornithological Club, the Peabody Museum of Salem, and colleges and universities in the Boston area are among the organizations which issued the invitation for this meeting.

Members and guests will register in the exhibit hall of the Boston Museum of Science on Tuesday, October 25, at 1:00 P.M. and on the following day beginning at 9:00 A.M. There will be a registration fee of \$2.00.

Tuesday will be occupied with business sessions, and Wednesday through Friday will be devoted to public sessions for the reading of papers or showing of kodaslides or motion pictures. All members of the A.O.U. will be the guests of the Massachusetts Audubon Society and Nuttall Ornithological Club at after-dinner coffee on Wednesday evening at 7:00, and the annual banquet will be held in the auditorium of the museum on Friday evening.

There will be field trips on Saturday, October 29, and on Sunday, October 30. Exhibits will be set up at the Museum of Science, the Art Gallery of Symphony Hall, and at Houghton and Widener Libraries of Harvard University. An attendance of three hundred is expected.

C. Russell Mason is chairman of the general committee on arrangements, which also includes Ruth P. Emery, Ludlow Griscom, Richard T. Kleber, Ernst Mayr, Henry M. Parker, Marjory B. Sanger, and Bradford Washburn.

New Staff Members



MISS ELSE BEHNCKE, of Boston, joined the staff of the Society in May, to aid in carrying on the work of the public relations department. Born and brought up in Germany, she received her education in the intermediary and commercial schools of that country. After spending several years in England, she came to the United States and was attached to the foreign language department of the First National Bank of Boston. Miss Behncke's interests range from hiking to music and literature, and she has been making frequent visits to the Arnold Arboretum to get acquainted with the shrubs and trees of this part of the temperate world.

MISS LOIS L. KINNICUTT, of Worcester, joined the teaching staff in eastern Massachusetts this autumn, having completed in June her work for the bachelor's degree in zoology at Vassar College. She has attended sessions of the Audubon Workshop at Cook's Canyon for two seasons. During summers while at College, she carried on nature lore work for the Worcester Museum and for the Pitt Hall Camp. Her studies included courses in ornithology and conservation of natural resources, and her extracurricular activities were membership on the board of the Athletic Association and supervision of the student work program. Her interests in the natural history field are mainly in birds and the application of crafts to nature study. Her father, Dr. Roger Kinnicutt, has been a strong supporter of the work of the Society as a member of the Cook's Canyon Sanctuary Advisory Committee.





BY RUTH P. EMERY

As the New England summer of 1955 fades, relief is general. The blistering heat, threat of hurricane winds, the deluge, and the tragic and devastating floods will not soon be forgotten. In August, Hurricane Connie kept New England on the alert for several days of the second week. As soon as that threat to this area was over, Hurricane Diane appeared on the scene, August 18-19, producing the heaviest rainstorm ever experienced in the Boston area (almost 12 inches). The temperature hit 90° or higher twenty-seven times this summer, a new frequency record. Tuna began to run the first week in August and SHEARWATERS and JAEGERS could be seen off Nauset from mid-August on. On a sea trip off Monomoy on August 20 four kinds of SHEARWATERS were observed, including a MANX (collected). About 75 WILSON'S PETRELS were also noted that day and a few PHALAROPES. Fishermen have reported large numbers of SHEARWATERS at sea, but much farther out than usual. Robert Grayce, an Audubon staff member, noted both the NORTHERN SKUA and about 50 FULMARS on a trip to Georges Bank in early July.

A HORNED GREBE summered at Devereux Beach, and another was found stranded on a ballfield on June 7 at Look Park, Florence, and placed in the pond there. It was again stranded on a highway and later banded, photographed, and released at Arcadia Wildlife Sanctuary, June 19.

On the whole, there was a poor flight of southern herons this year, although several species were noted. AMERICAN EGRETS nested again at South Hanson Swamp, and two young birds thought to be SNOWY EGRETS were seen in a nest at Quivett Neck (LeBaron); two adult birds were seen and one photographed there in the rookery, but they were not seen on the nest. Rhode Island takes top honors for variety with a CATTLE EGRET (South Kingston), and a GLOSSY IBIS (Barrington). A LITTLE BLUE HERON was reported as far north as Bar Harbor, Maine (Ernst and Mann). A few YELLOW-CROWNED NIGHT HERONS were seen, including the elusive individual at Green Harbor. The bird of the year to date in Massachusetts is the immature WOOD IBIS that appeared at Rockport, June 28 (Wm. Robinson), and July 1 (H. Murphy et al). "Henry," as the bird was called by local residents because it was most frequently seen at Henry's Pond, was photographed by several people as it fed at the edge of reeds in the small pond. Sometimes it would disappear for a few days at a time but was seen off and on into the first week of August. About the time of this bird's arrival in Rockport we heard of an invasion of WOOD IBIS in Maryland, where as many as 15 birds were seen in one day. An immature bird was also observed in Somers, Connecticut, on July 13 (Arnold). Another was reported seen in Portland,

Connecticut, July 16 (Whittles), and an immature was present in Bloomfield, Connecticut, July 20 through August 8 (Hartford Bird Study Club), when the small mud hole was bulldozed by a building concern.

MUTE SWANS nested at Acoaxet, and 8 were present at Falmouth, although to date we have not heard whether they nested.

An AMERICAN BRANT was present in Manchester, June 20 and 21.

In Portland, Connecticut, at a duck sanctuary 62 pairs of WOOD DUCKS were nesting in June, and in July 750 adults and young were noted. Only three nesting boxes were not used, and of the total of 1040 eggs counted, 70 per cent hatched. Two pairs of RING-NECKED DUCKS nested successfully in Lisbon, Maine. An adult and five young HOODED MERGANSERS were seen at West Newbury during July (deWindt), and a female and 6 young were seen in Royalston, June 18 (Anderson). AMERICAN MERGANSERS nested again in Charlemont near the Deerfield River. Eight to ten young were seen with an adult female there, July 18 and 21.

A BLACK VULTURE was seen at Marblehead and Devereux Beach, July 26, 27, and 30 (Hogg, Tierney, Searle). An adult GOSHAWK was seen in Monroe, July 9 (Weeks and Harrington).

Two albino PHEASANTS were seen in Walpole.

There was an early migration of adult shore birds. Good numbers of CURLEWS and GOLDEN PLOVERS have been reported. A SPOTTED REDSHANK was carefully studied in Tiverton, Rhode Island, May 30 and 31 (Berger and Bowen). One thousand KNOTS were present at Third Cliff in Scituate, where WILLETS were also seen. After Hurricane Connie 58PECTORAL SANDPIPERs were counted at Newport, Rhode Island (Baird and Drury), and 52 were seen in the Sudbury Valley, August 30 (Morgan and Drury). Several BAIRD'S SANDPIPERs were reported. A BUFF-BREASTED SANDPIPER at Nantucket, August 26, and one at Newburyport the same day, are the first to be reported. MARBLED GODWITS have been seen at Monomoy, Nauset, and Newburyport, and as many as 12 HUSSONIAN GODWITS were present at Monomoy. Single birds were reported from Squantum and Newburyport. A WILSON'S PHALAROPE was watched for over an hour at Turner's Pond in Milton, July 18 (O'Regan and Emery). An AMERICAN OYSTER-CATCHER was collected at North Beach (Chatham), May 29.

An adult LITTLE GULL and a EUROPEAN BLACK-HEADED GULL were both observed at Newburyport. On August 28 an immature SABINE'S GULL was seen at Monomoy. Thousands of COMMON TERNS were noted at North Beach, Chatham, and LEAST TERNS nested at Salisbury. A CASPIAN TERN was seen at Chatham, July 2 (Freeland). There was a good migration of BLACK TERNS, and a SOOTY TERN was picked up alive in a flooded marsh in Hancock, New Hampshire, August 16 (C. Walcott); the bird survived and enjoyed a diet of pickerel and flounder. BLACK SKIMMERS were reported from Chatham, Revere, Monomoy, Plymouth, Nauset, and Nantucket.

A RAZOR-BILLED AUK was seen at Cuttyhunk throughout July which appeared unable to fly. A BLACK GUILLEMOT was picked up by Warden Kendall on the beach at Monomoy, and this bird also was unable to fly.

CUCKOOOS seemed to have suffered a severe loss in numbers after the unprecedented flight last fall.

SHORT-EARED OWLS were reported from Nantucket and Monomoy. A BARN OWL was seen in Rowley, June 18 (D. Alexander), and 3 young were banded in Lynn, June 21 (Blake, Stewart, and Reed). NIGHTHAWKS and CHIMNEY SWIFTS have been noted migrating in numbers. A RED-HEADED WOODPECKER at Charlemont remained from mid-May through the month of June. ARCTIC THREE-TOED WOODPECKERS nested at the Connecticut Lakes in Pittsburgh, New Hampshire, and an AMERICAN THREE-TOED WOODPECKER was reported from Eustis, Maine (Root).

KINGBIRDS moved out two weeks earlier this year. FLYCATCHERS were migrating, August 27 and 28. An albino PHOEBE was observed in Rutland, Vermont. TREE SWALLOWS were flocking by the end of July, and 500 BARN SWALLOWS were noted flocking on July 4 at Lynnfield (Barry). PURPLE MARTINS successfully nested at Plum Island, a first record for the island. A pair of MOCKINGBIRDS nested in Rutland, Vermont, where two young were seen. BLUEBIRDS and HOUSE WRENS are still down in numbers. BLUE-GRAY GNATCATCHERS were first seen August 21 (Keenan). MIGRANT SHRIKES were reported from Ipswich (June 2), Chatham (August 28), and Saxonville (August 30). PHILADELPHIA VIREOS were noted migrating, August 21-23. An adult male LAWRENCE'S WARBLER was found in West Newbury on May 14 (Barry and Emery), was seen by numerous observers into June and again on August 29 (deWindt). There was a movement of WARBLERS the night of August 2. On August 3 a BAY-BREASTED WARBLER and a GOLDEN-WINGED WARBLER were seen in Wayland. Another migration was noted, August 27, when 6 species of WARBLERS were seen at Moon Island (Squantum) and 7 species at Rockport. There was a big movement of WATER-THRUSHES in Newport, Rhode Island, in August. A LOUISIANA WATER-THRUSH was feeding young in Granby on July 29 and could still be heard singing. BOBOLINKS seemed to have a good nesting season. A few DICKCISSELS have been reported. Woodstock, Vermont, had its second nesting record of the EVENING GROS-BEAKS. A HOUSE FINCH was heard singing in Ashley Falls at the "Cobble" on June 7 and identified on June 15 (S. Waldo Bailey); it was heard into early July. RED CROSSBILLS were seen at Mt. Greylock, Nantucket, and Mt. Desert Island, Maine. A very early FOX SPARROW was found at Monomoy, August 14, and another at Nantucket, August 24.

We were very glad to hear that all HAWKS and OWLS, with the exception of the GREAT HORNED OWL, are now protected in the State of Maine.

Many members enjoyed the August Field Trip to the tip of Crane's Beach in Ipswich. It was a very hot day, with the temperature reaching 96°. Five BLACK TERNS were watched flying and at rest on the beach. Numbers of WHITE-RUMPED SANDPIPERs were carefully studied until everyone felt well acquainted with them.

If you have been unable to reach the "Voice of Audubon," KENMORE 6-4050, recently, it is because a second machine was being installed. This will save the wear and tear on a single machine, while increasing the capacity for your messages. Switching equipment had to be installed so that incoming calls could alternate automatically on the two machines. This is the first time two machines have been installed on one telephone line.

Hunting Regulations Issued

The Fish and Wildlife Service in July and August released basic regulations for the hunting of Rails, Gallinules, Woodcock, Snipe, and waterfowl which will be in effect during the 1955-56 season. For the Atlantic Flyway, which includes the New England States, the season on Rails and Gallinules is shortened from 70 days to 60 days and the bag limit on these birds (except Sora) is reduced from 15 daily and 30 in possession to 10 daily and 20 in possession. The "outside" dates within which the States are permitted to select the season dates most desirable to them are September 1, 1955 to January 10, 1956.

The "outside" dates on Woodcock are lengthened by ten days, permitting each State through its game administration to select a season of 40 consecutive days within a framework of October 1, 1955, to January 20, 1956. The daily bag and possession limits remain unchanged at four and eight respectively.

The Snipe season of 15 days may be selected within the framework of the waterfowl hunting period. Daily bag and possession limits remain at eight.

Based on reports of technicians of the Fish and Wildlife Service and many co-operating agencies in the United States and Canada that waterfowl had a good breeding season, it is anticipated that the fall flight will be the heaviest in years. Ten additional days have therefore been added to the shooting season in the Atlantic Flyway. Within the framework of October 1, 1955, to January 15, 1956, a 70-day consecutive period may be selected by the State game administration; or, if preferred, a split season of 63 days, of two periods which may be unequal in length.

Baiting of waterfowl is still prohibited. Shooting hours are from one half hour before sunrise to sunset. Daily bag and possession limits are four and eight respectively for ducks, except for Wood Duck, on which these limits remain at one for daily bag and two in possession, and Hooded Merganser at one and one. The daily bag on geese is set at two and the possession limit four, with the exception of Brant, on which the figures are set at six for daily bag and one in possession. For Coot the daily bag limit and the possession limit are ten.

Regulations are slightly different for Scoter, Eider, and Old-squaw Ducks, which may be taken in open coastal waters only, beyond outer harbor lines, in Maine, Massachusetts, New Hampshire, and Rhode Island, from September 16 to December 31; in Connecticut and New York, from October 1 to December 31. In areas other than those beyond outer harbor lines such birds may be taken during the open season for other ducks. In these States only, the daily bag limit is 7 Scoter, Eider, or Old-squaw Ducks singly or in the aggregate, and not exceeding 14 in possession singly or in the aggregate of all kinds.

In formulating these regulations it is said that full consideration was given to the opinions and recommendations of the National Waterfowl Council consisting of the directors of State game departments and representatives of such organizations as the National Audubon Society, the Wildlife Management Institute, and the National Wildlife Federation.



MEMBERSHIP NEWS

A Hint for Parents — or Grandparents

One of our newer members who enjoys the *Bulletin* wrote us recently: "My membership is not yet a year old. I have enjoyed it so much that I wish I had been a member as a child." But this is not a new idea, for there are already many young readers of the *Bulletin* who are enrolled as full members of the Society with its many privileges. Early impressions are often lasting impressions, and we wonder what better investment could be made for the cause of conservation and to insure a lifetime of real pleasure and usefulness than to start a boy or girl at an early age in a love and appreciation of their great heritage in the natural world in which they live. We hope many of our members will consider seriously this opportunity.

We welcome the following new members to the Society at this time. We also thank those older members who are increasing their support of our work.

Life Members

Ayling, Miss Edith C., Waban
*Baird, Mrs. Mary W., Dover
*Parker, Miss Ruth, Beverly

Contributing Members

**Bowles, Mrs. H. L., Blodgett Landing, N. H.
**Felker, Mrs. Elizabeth, Antrim, N. H.
**Forte, Mrs. Orville W., Waban
*Graton, Bowman, Milton
**Harding, Miss Madeleine, Cambridge
**Long, W. B., Concord
McKean, Mr. and Mrs. Henry P.,
 Beverly Farms
*Paine, Mrs. Frank C., Wayland
**Purmort, Miss Hazel M., Boston
 Walcott, Eustis, Dover

Supporting Members

Batchelder, Mrs. Roland B., Boston
Bolding, Mrs. Dorothy, Milton
Bolles, Mr. and Mrs. Reginald F., Cotuit
Briggs, L. Cabot, Hancock, N. H.
Broadhead, Miss Eleanor, Salem
Brown, Robert S., Middleton
Brown, Wilbur R., Lynn
*Candy, Robert, Freedom, N. H.
*Carpenter, Hall B., Rockland
Carson, Miss Rachel L.,
 Silver Spring, Md.
Chase, Allan P., Kennebunk, Me.
*Chisholm, Mrs. William, S. Weymouth

*Transferred from Active Membership
**Transferred from Supporting
Membership

Chrisman, Mrs. Donald, Northampton
Clark, Jay, Cotuit
*Cushman, Leonard, Winthrop
*Darlington, Mrs. P. J., Jr., Lexington
Derwinski, Leonard C., Rockport
Duffy, John F., W. Newton
*Ellsworth, Miss Margaret L., S. Hadley
Evans, Irvin, Newton Ctr.
Glodt, Dr. and Mrs. Herbert R., Pittsfield
Graffam, Mrs. Alden F., Holliston
*Gyers, Walter, N. Cambridge
Haidak, Dr. Gerald L., Pittsfield
Harris, Kenneth S., Concord
*Hawkes, Mrs. Roger D., S. Weymouth
*Helmer, Edwin P., Brookline
Hutchins, Miss Johanna, Pittsfield
*Leavitt, George A., Natick
Lewis, Dr. Harrison F.,
 Shelburne Co., N. S.

Lieberman, Joshua, Sturbridge
*Lowe, John E., Fitchburg
*Petri, C. F., Weston
*Price, Robert D., Holden
Princeton Garden Club, Princeton
Redfern, Donald, Swampscott
Rippere, Mrs. Ralph E.,
 Schenectady, N. Y.
*Robert, Mrs. Daniel R., Jackson, Mich.
Sandner, Miss Frieda, Boston
Shea, Mrs. C. Bernard, Sheffield
Tuck, Leslie M.,
 St. John's, Newfoundland
Wheelwright, George W., Leominster
*Whiting, Mrs. Winfred H., Worcester

Active Members

- Abbot, Miss Caroline, Marblehead
Ackland, Neil W., Arlington
Allen, Mrs. Henry F., Boston
Almy, Mrs. Samuel Cabot, Cotuit
Ashley, Miss Mildred A., Middleboro
Auryansen, Mrs. Winslow, Newtonville
Bailey, Mrs. Jackson E., N. Scituate
Barry, Miss Elizabeth, Cambridge
Beal, Willis P., Boston
Beaven, Mrs. H. Edgar, Newtonville
Beck, Alan, Hingham
Beckwith, Mrs. Richard Arnold,
Fairhaven
Beecher, Mrs. Frederick J.,
Bennington, Vt.
Belmont, Miss Barbara B., Cambridge
Bennett, Mrs. Ansel G., Quincy
Benson, Norman E., Lynn
Berg, Frederic L., Natick
Berkenbush, Mrs. Kenneth, W. Newbury
Beverly, Brenton F., Los Angeles, Cal.
Beverly, Mrs. Carleton H., Wilbraham
Bird, Mrs. Eugene H., Boston
Bothwell, Anthony P., Pittsfield
Brackley, Miss Joan L., W. Somerville
Bradford, Mrs. Alfred, Biddeford, Me.
Brisby, Miss Marjorie, Chestnut Hill
Brockway, Mrs. Thomas P.,
N. Bennington, Vt.
Burland, Mrs. Carlyle, S. Sudbury
Caldwell, Philip H., Beverly
Campbell, Miss Jean L., Boston
Campbell, William I. P., Northampton
Conover, Mrs. William B., Pittsfield
Cook, Mrs. C. S., Jr., S. Lincoln
Corcoran, Miss Rose M., Chicopee
Crapo, Mrs. William H., Middleboro
Cutler, Mrs. Lewis, Biddeford, Me.
Dagmar, Belmont
Davis, Miss Pamela H., Allston
Deane, Mrs. Frederick, Marion
Delorey, Mrs. Eileen, Orleans
Denzel, Mrs. Marvin R., Pittsfield
Doane, Mrs. Edgar, Weymouth
Dodge, Mrs. Harold O., Pittsfield
Drumm, Ernest F., Lenox
Dyer, Lewis A., Newburyport
Eddy, Miss Ruth H.,
Old Bennington, Vt.
England, Dr. Albert C., Jr., Boston
Ensor, John S., Waterbury, Conn.
Fairfax, Charles W., 2nd, Boston
Fisher, Miss Alice L., Rochester, N. H.
Flanders, W. N., Hampstead, N. H.
Fleming, Walter J., Worcester
Franklin, Mrs. Curtis,
Mountain Lakes, N. J.
Gable, John Allen, Lenox
Gaffney, Robert L., Gloucester
Gallagher, Mrs. Matthew, Boston
Geist, Robert L., Brookline
Gilbert, Gregory, Brookline
Gilbert, Roderic, Brookline
Gunn, Raymond N., Boston
Gwin, Samuel, Boston
Haburay, Joseph K., Westboro
Hawes, Mrs. L. Roy, S. Sudbury
Haynes, Mrs. George, Sudbury
Heald, Mrs. Trevor B., Sandwich
Henderson, R. S., Daytona Beach, Fla.
Hinman, Mrs. George, Newtonville
Hodges, Miss Phyllis, Waterbury, Conn.
Holyoke Bird Club, S. Hadley
Hopkins, Mrs. Reuben, Orleans
Howat, Mrs. John, Biddeford, Me.
Hubbard, Martin C., E. Otis
Hunewell, Robert, Somerville
Hunt, Fred M., Petersham
Hunter, Mrs. Christine H., Stow
Ingalls, Robert U., Swampscott
Isleib, Peter M., E. Hampton, Conn.
Jensen, Fred J., Boston
Johnson, Mrs. Ruth B., Swampscott
Jones, Edward L., Jr., Newton Ctre.
Kelley, Miss Judith, Watertown
Kelley, Mrs. Theobald M., Marblehead
Kellogg, Franklin R., Stowe, Vt.
Kennedy, Theodore, Auburndale
Kentley, Miss Emily, Newton Ctre.
Kimball, Mrs. John P., Lenox
Knowlton, Mrs. Harold W., Auburndale
Leake, Mrs. R. B., Jr., Bennington, Vt.
Levy, Dr. Arthur M., Pittsfield
Lewis, James, Holyoke
Libby, Mrs. Warren, Biddeford, Me.
Lister, William, Stoneham
Little, Miss Margaret S., Brookline
Lucas, Chester, Dorchester
Lund, Mrs. Harold, Merrimac
Macarchuk, John, Rutland
Mackiewicz, Miss Sandra, Holyoke
Madeiros, Miss Mary L., Edgartown
Mayo, Mrs. Henry K., Jr., Swampscott
Mayo, Miss Natalie, Boston
McCaig, Bruce W., E. Taunton
McDaniel, Mrs. Paul F., Newton Ctre.
Meigs, Mrs. Wallace, Grafton
Merrill, Mrs. Chester, Newtonville
Merrill, Mrs. Randolph, Newtonville
Miller, Mrs. Guy, Gardner
Milne, George E., Barre, Vt.
Mitkoff, William, Pittsfield
Moeckel, Mrs. John, Saco, Me.
Morse, Mrs. Frank P., Jr., Swampscott
Muller, Eric H., Lynn
Murphy, Herbert A., Rockport
Murphy, Joseph, Melrose
Murnane, John P., Lowell
Nelson, Mrs. C. Arvid, S. Sudbury
Nelson, Miss Pearl Astrid, Waltham
Olsen, James Anton, Pittsfield

O'Neill, Mrs. Robert, Swampscott
 Patterson, Dr. Thomas D., Lynn
 Philpot, Miss Ella B., Westport Pt.
 Phinney, Mrs. Wallace S., Springfield
 Pickering, John W., Boston
 Pierce, Mrs. Paul H., Newtonville
 Pierce, Roger, Milton
 Pomerantz, William, Pittsfield
 Reeves, Mrs. E. E., Pittsfield
 Reilly, Walter E., Pittsfield
 Richardson, Miss Linda, Dedham
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 Ris, Mrs. Albert L., Richmond
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 Stimson, Miss Marjory, Wellfleet
 Stone, Rev. Alfred W., Watertown
 Swan, Carl L., Newtonville
 Symmes, Dean W., Winchester
 Travaglini, Mrs. Theodore, Middleboro
 VanDusen, Edward S., Pittsfield
 Von Iderstein, Mrs. Irl, N. Scituate
 Wadson, Mrs. T. J., Hamilton, Bermuda
 Waldo, Mrs. John A., Swampscott
 Walen, Mrs. Harry L., Sr., Newton Hlds.
 Wason, Alfred B., Dedham
 Waters, Everett O., Mt. Carmel, Conn.
 Wetherell, Mrs. R. A., Attleboro
 White, Miss Lucy N., Egypt
 Whittenberger, Mrs. James L., Weston
 Wiggin, Miss Heidi Sinbad, Hamilton
 Wilkins, Arthur C., Nahant
 Wilkins, Mrs. Arthur C., Nahant
 Wilkinson, Mrs. Randolph H., Pittsfield
 Williams, Miss Doris B.,
 New Britain, Conn.
 Williams, Mrs. Elwyn, Sudbury
 Worcester, Edward E., Waltham

News of Bird Clubs

On Friday, October 21, THE HOFFMANN BIRD CLUB of Pittsfield is sponsoring an illustrated lecture "The Heart of Africa," to be presented by Dr. John N. Booth at the Berkshire Museum. Officers of the club for the year are as follows: President, Miss Edna L. Dunbar; Vice-President, Alvah Sanborn; Recording Secretary, Miss Martha Glander; Corresponding Secretary, Miss Priscilla Bailey; Treasurer, Neil Currie; Executive Committee, Bartlett Hendricks, William Noble. The regular meeting of the club on November 1 will be in charge of Alvah Sanborn.

At the regular meeting of the ALLEN BIRD CLUB of Springfield on October 10, Richard Bird, Audubon wildlife photographer from Regina, Saskatchewan, will show his color film entitled "Newfoundland." Field trips scheduled for October are as follows: October 1, to Cobble Mountain and Ashley Reservoir; October 8, to Quabbin Reservoir; October 15, to Pontoosuc and Onota Lakes, Pittsfield; October 22, to Long Island Sound, where the club will be the guest of the Hartford Bird Study Club; October 29, an auto trip to Lakeville, Plymouth, and Manomet. At the annual meeting of the club in May, the following officers were elected for the coming year: President, J. Edward Hyde; Vice-President, George P. Rickards; Secretary, Mrs. Daniel Trombla; Treasurer, Richard Ballman; Executive Committee, Mrs. Harold G. Dickey, Mrs. Marion Yates, and William Tompkins; Field Trip Committee, Misses Eva and Myrtle Brown and Miss Mildred A. Tyler; Chairman of Hospitality Committee, Mrs. George P. Rickards; Publicity, Moreton R. Bates.

Our member F. W. Gade, of Lundy, in the Bristol Channel, England, wrote us that their migration season last spring, like ours, was rather disappointing owing to long spells of cold weather, and he mentioned a notable capture in one of the Heligoland traps, a Sardinian Warbler, *Sylvia melanocephala*. This is the second authenticated record for Great Britain, the last one being in 1906. He also tells us of a Yellow-throat caught in November of last year, and a Myrtle Warbler seen in Exeter, Devon, from January 5 to February 10, when the bird died.

Exhibition of the Work of Paul Barruel

The first exhibition of the work of Paul Barruel to be held in this country takes place during October in Symphony Hall, Boston, in conjunction with the Seventy-third Meeting of the American Ornithologists' Union. M. Barruel, one of the leading natural history artists of present-day Europe, has recently become widely known in Great Britain and the United States through his striking color illustrations for his own *Birds of the World, Their Life and Habits* (1953) and Bourlière's *The Natural History of Mammals* (1954).

In addition, M. Barruel has published, with his illustrations, *Les oiseaux dans la nature* (1949), a field guide to the birds of France, Switzerland, and Belgium; has provided the zoological chapters for *Montagnes: la vie aux hautes altitudes* (1955); and has contributed illustrations for the volumes on birds and mammals of the comprehensive *Traité de zoologie*, ed. P. Grassé (1948-

), for *Iconographie des oiseaux de France*, ed. J. Berlioz (1955), and for the forthcoming *Field Guide of European Mammals*, by F. H. van den Brink, to be issued in the Peterson series of field guides.

Born in Paris in 1901, M. Barruel was interested from an early age in natural history and animal art, though working until 1942 in another profession. Since that year he has devoted himself to natural history art professionally. Sculpture, practiced until 1932, contributed to the development of his technique. His portayals of animals are based as far as possible on field work, with study of the actual surroundings. In certain cases zoo specimens have been observed. Examination of skins has supplemented observation for details when necessary. When required to illustrate animals he has never seen, the artist endeavors to collect a number of photographs from life of the species in question or at least of a related species. These photographs are studied before turning to skins or mounted specimens.

M. Barruel holds the honorary title of Attaché du Muséum National d'Histoire Naturelle, Paris.

G. W. COTTRELL, JR.

Our sales department recently had a note from Roger Eddy, creator of the Audubon Birdcall, in which he told us that he had no idea when he first started making the calls in his living room how big this country was. "We now have a branch in England, and the Birdcall is being sold in Canada, South Africa, Australia, Mexico, Greece, and India." He added that he had learned that the device had "little effect on penguins, but that it momentarily silenced a group of seals. In the tropics . . . it attracted a large number of parakeets and other jungle birds, and also a host of small mammals."

In connection with their recent New England Summer Holiday Display, Wm. Filene's Sons Company invited participants in an "amateur bird watching contest" (mounted birds furnished by the Society) to complete the following line: The work of the Massachusetts Audubon Society is valuable because Winners included Dorothy A. Batos, 14 Beacon Street, Boston, whose entry stated that the value lay in "the forward and worthwhile work done in promoting the conservation of wild life and natural resources in Massachusetts and indirectly in other states too."

LOOKING AHEAD



- October 1 Moose Hill Sanctuary, Sharon. 10:00 A.M. to 3:00 P.M. Reunion of members of Audubon House courses and workshops.
- October 1 Cook's Canyon Sanctuary, Barre. 10:00 A.M. Annual meeting of Northeastern Bird Banding Association.
- October 4, 11, 18, 25 Rocky Knoll, Milton. 10:15 A.M. to 11:45 A.M. "THE THREE KINGDOMS." General conservation and natural history workshop.
- October 5, 19, 26 Rocky Knoll, Milton. 10:15 A.M. to 11:45 A.M. "THE WEB OF LIFE." General conservation and natural history workshop. Identifications.
- October 5 Audubon House, Boston. 7:30 P.M. Organizational meeting of "THE ECOLOGY WORKSHOP." Monthly field trip meetings.
- October 6, 13, 20, 27 Audubon House, Boston. 7:30 P.M. to 9:00 P.M. "THE WEB OF LIFE." General conservation and natural history workshop. Identifications.
- October 7, 14, 21, 28 6:00 P.M. Television program "DISCOVERY." Channel 2, WGBH-TV.
- October 15 "THE ECOLOGY WORKSHOP." Monthly field trip meeting.
- October 16 AUDUBON FIELD TRIP to North Shore. Full announcement in this *Bulletin*.
- October 25-30 Convention of AMERICAN ORNITHOLOGISTS' UNION. Museum of Science, Boston.
- November 1, 8, 15, 22 Rocky Knoll, Milton. 10:15 A.M. to 11:45 A.M. "THE THREE KINGDOMS." General conservation and natural history workshop.
- November 2, 9, 16, 23, 30 Rocky Knoll, Milton. 10:15 A.M. to 11:45 A.M. "THE WEB OF LIFE." General conservation and natural history workshop. Identifications.
- November 3, 10 Audubon House, Boston. 7:30 P.M. to 9:00 P.M. "THE WEB OF LIFE." General conservation and natural history workshop. Identifications.
- November 19 "THE ECOLOGY WORKSHOP." Monthly field trip meeting.
- November 20 AUDUBON FIELD TRIP to Newburyport and Cape Ann. Full announcement in this *Bulletin*.
- December 10 "THE ECOLOGY WORKSHOP." Monthly field trip meeting.
- December 21 Boston Common. CHRISTMAS TREE FOR THE BIRDS.

The Bird World

The Lowell Institute announces a course of four lectures on "The Bird World," illustrated by slides, moving pictures, and models, to be given by the following lecturers:

1. *Bird Adaptations and Specializations.* By Gilbert E. Merrill, M.A., Assistant Director of Education, Museum of Science, Boston.
2. *The Mysteries of Bird Migration.* By Richard T. Kleber, B.S., Education Department, Museum of Science, Boston.
3. *Beauty in the Bird World.* By C. Russell Mason, M.S., Executive Director, Massachusetts Audubon Society, Boston.
4. *Enjoying the Birds — Techniques and Projects.* By Norman D. Harris, M.A., Director of Education, Museum of Science, Boston.

These lectures will be given under the direction of the Department of Education of the Museum of Science, at the Museum of Science, Science Park, Boston, Mondays, beginning October 3, 1955, from 5:00 to 6:00 P.M. The final lecture will be given on Monday, October 24. *No tickets are required.* Doors close promptly at 5:00 P.M. The Science Park Station of the M.T.A. is now open.

New Books Added to Our Lending Library

The Elizabeth Loring Lending Library is a most valuable asset to our members within reach of Audubon House or to those who care to take advantage of the mail service. As members who use the library know, it offers a wide range of reading matter on the associated subjects of conservation and wildlife, varying in form from scientific treatises to essays on the "simple life."

If you are not already a patron of the Lending Library, why not become one this summer? Two books may be taken out at a time and kept for a period of four weeks. A mimeographed list of books in the library is available, but the list needs occasional revision and additions, such as the following:

- | | |
|--|---|
| Allen, Durward L., Our Wildlife Legacy | Peterson et al., Field Guide to Birds of Britain and Europe |
| Andrews, Roy Chapman, Beyond Adventure | Pettingill, O. S. Jr., Guide to Bird Finding, West |
| Audubon, J. J., Ornithological Biographies | Pough, R. H., Audubon Bird Guide |
| Bent, A. C., Life Histories of North American Warblers | Pough, R. H., Audubon Water Bird Guide |
| Blake, E. R., Birds of Mexico | Rogerson-Tunnicliffe, Our Bird Book |
| Carrighar, Sally, Icebound Summer | Saunders, A. A., Lives of Wild Birds |
| Delacour, Jean, Waterfowl of the World | Scott, Peter, Wild Chorus |
| Fisher-Lockley, Sea-Birds | Scott-Fisher, A Thousand Geese |
| Holland, W. J., The Moth Book | Storer, John H., The Web of Life |
| Holton, Virginia, The Beeps | Teale, E. W., Circle of the Seasons |
| Howes, Paul G., The Giant Cactus Forest | Teale, E. W., Wilderness World of John Muir |
| Jaques, F. P., Canadian Spring | Tunnicliffe, C. F., Shorelands Summer Diary |
| Kipps, Clare, Clarence | Way-Standen, Zoology in Postage Stamps |
| Liers, Emil E., An Otter's Story | Wyman, Donald, Shrubs and Vines for American Gardens |
| Lockley, R. M., Puffins | Wyman, Donald, Trees for American Gardens |
| Lockley, R. M., Saga of the Grey Seal | |
| Lorenz, Konrad Z., King Solomon's Ring | |
| Loveridge, Arthur, I Drank the Zambezi | |
| Milne, L and M., The Mating Instinct | |
| Murchie, Guy, Song of the Sky | |
| Murphy-Amadon, Land Birds of America | |

There is no charge to members for this service, except for postage where books are sent by mail.



BOOK REVIEWS

HIGH TIDE AND AN EAST WIND:
The story of the Black Duck. By Bruce S. Wright. The Stackpole Company, Harrisburg, Pa., and the Wildlife Management Institute, Washington, D. C. 1955. 162 pages. \$4.50.

The author, employed by Ducks Unlimited in 1945 to explore the possibility of extending its operations to eastern Canada, reported small need for the sort of habitat improvement then going forward in the prairie provinces, but great need for basic research in the nesting ecology of the Black Duck, principal game waterfowl of the region. Several other agencies promptly agreed to join in support of a Northeastern Wildlife Station at Fredericton, New Brunswick, and in 1947 there began an intensive 5-year study of the nesting waterfowl on a 32,000-acre tract of marsh and bottomland lying between the St. John River and Grand Lake.

Primarily, this book sets forth the findings of the project, which has been admirably organized from its beginning. The study area is optimum summer habitat for Black Ducks. The nesting birds are a part of the fairly distinct maritime population which winters along the northern half of the Atlantic seaboard. The food of this population is mostly animal on the coast, mostly vegetable on fresh water inland. Nests on the study area are widely scattered, frequently far from permanent water, with an estimated average density of 1 to 39 acres. Average clutch size is 9; average brood size at flying time, 6.3. The important mortality factors appear to be spring Muskrat trapping and fall shooting, with little evidence of significant disease or of serious natural predation. A tentative life equation indicates that the population, reckoned from October 1, can maintain its numbers against a shooting season loss of 43%, winter loss of 17%, and nesting season loss of 16%. These are the highlights of a study which is based upon much larger samples of data than any previous observation, and which has considered,

within the obvious limitations of a 5-year period, every detail of nesting ecology. It is probable that the conclusions are widely applicable to the whole maritime population of Black Ducks.

In addition to reporting on the St. John project, this book makes two further contributions which should be noted: it includes a descriptive account of Quebec and Newfoundland Labrador from the standpoint of waterfowl production, and, in a preliminary way at least, it relates its collected data to a possible management program for the whole Northeast. The first is important because less than a dozen waterfowl biologists have laid an eye on the great interior wilderness of Ungava, and, of these, Wright is the first to summarize his observations in print. As to the second, the author himself refers in several places to the fact that the problems of effective management lie partly in the United States and are beyond the scope of his detailed study, but to have a Canadian point of view thus outlined is certainly a desirable step toward a solution which must, of necessity, be co-operative.

JOSEPH A. HAGAR

THE GOOD TRAIL. By Bill Geagan. Coward-McCann, New York. 1954. 237 pages. \$3.50.

Mr. Geagan in an earlier book, *Nature I Loved*, told how he had sought in the woods of Maine a way to live which would give him spiritual satisfaction. He found it in nature writing, with some hunting and fishing. In the first book the reader sees him actually living and observing; but in this second book he determinedly chains himself to his typewriter because he has been asked to write another book. He frequently remarks that he wants to go fishing instead, and we wish he would.

The trail was once a good trail but it is no longer a fresh one; the footprints are lost in a muck of clichés; the trail goes nowhere.

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BOOK REVIEWS, cont.

OUR CHANGING WEATHER. By Carroll Lane Fenton and Mildred Adams Fenton. Doubleday and Company, Inc., Garden City, N. Y. 1954. 110 pages. \$2.50.

Those familiar with *The Land We Live On*, *Our Amazing Earth*, or any of the books on earth science by the Fentons will welcome this new book, written, like all their other books, with an understanding of their subject and the young people and adults, untrained in the field, for whom they are writing.

Our Changing Weather is nontechnical, but not so oversimplified as to distort the truth or leave the person seeking information unsatisfied. Where "the weather man's" language is necessary to use to make a concept clear it has been used, but each term is clearly defined or explained in words elementary school children can understand.

In the first chapter the idea is given to the reader that it is both fun and possible to become a weather forecaster. In the last chapter the reader is shown how to use the facts learned through the preceding chapters to tell what weather is to be expected later in the day, or even tomorrow.

The first part of the book explains accurately, yet briefly, about the reasons for changing seasons, the earth's atmosphere, and the results of uneven heating of the earth's surface. The meaning of such manifestations as the ring around the moon, the "sun drawing water," cool sea breezes, and increasing winds as the sun rises higher is clearly shown. The book tells just what rain, dew, frost, fog, smog, hail, sleet, and snow are, and the conditions under which each might be expected. Weather terms such as cyclones, tornadoes, hurricanes, occluded front, or crepuscular rays are clearly defined. The intricacies of the daily weather map which may bewilder you at first glance are so explained that it is found it can be easily understood and interpreted after you know the meaning of each line, symbol, and number. *Our Changing Weather* makes the interpretation of these maps possible for even the elementary school child.

The book is richly illustrated with photographs, drawings, diagrammatic pictures and maps. The print is clear. The sentences are short and the vocabulary fitted to upper elementary school children. As in all science books, the language of the specialist field would need to be taught.

The study of weather has an important place in most elementary school curriculum guides. This book will help teachers

BOOK REVIEWS, cont.

gain the necessary background to teach scientific facts about weather. Children in the upper elementary grades and junior high school could use the book themselves with a minimum of assistance.

I recommend that *Our Changing Weather* be placed in every elementary and junior high school library.

RACHEL S. BRUCE

A HISTORY OF BIRDS. By James Fisher. Houghton Mifflin Co., Boston. 1954. 205 pages. \$3.75.

In what he calls an introductory work, designed for university students, a leading ornithologist of Britain and the world has given us a succinctly-distilled encyclopedic outline of the history of birds and bird-study. A abundantly documented, and equipped with a bibliography which is virtually a list of the great original research papers of ornithology, this little volume is crammed with significant information concerning what Josselyn Van Tyne has called "the most fascinating of our fellow organisms."

While Mr. Fisher devotes a good deal of space to British ornithology, he is neither provincial nor condescending in his discussion of New World bird-study. Indeed, he himself states: "To illustrate the rise of geographical ornithology . . . in the following pages I pay special (though not sole) attention to the birds of America." As background for doing so, and with an instinct for the finest, Fisher copiously cites Ernst Mayr's 1946 *Wilson Bulletin* paper on the origin of the North American bird fauna. It is similarly gratifying to find that Fisher's discussion of early American ornithology is based upon the paper by Elsa G. (Mrs. Arthur A.) Allen which appeared in 1951 in the *Transactions of the American Philosophical Society*. In such manner this book gives us the best of the world's ornithological literature, much of which is not easily available in original form.

This brief review cannot do justice to the wide range of significant and absorbing reading which *A History of Birds* provides. It is strong stuff, somewhat heady, perhaps, for the casual bird-watcher. But for the more serious student, professional or amateur, who sees something more than the individual bird or record, and who has come to experience that insatiable curiosity about birds and their fascinating history — here is an advanced course in ornithology which costs \$3.75!

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Durward L. Allen		The Story of Mosses, Ferns and Mushrooms	2.75
The Quails	2.95	Dorothy Sterling	
Edward S. Spaulding		Mushrooms of Eastern Canada and the United States	4.00
Illustrated by Frances Lee Jaques		Rene Pomerleau	
*Woodcock	2.75	Picture Primer of Indoor Gardening	2.00
John Alden Knight		Margaret O. Goldsmith	
*Key to the Wildfowl of the World	1.25	Picture Primer of Attracting Birds	2.00
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The Ducks, Geese and Swans of North America	6.50	The House on Nauset Marsh	3.75
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Beginner's Guide to Wild Flowers	3.50	Seeds of Life	3.00
Ethel Hinckley Hausman		John Langdon-Davies	
Field Book of American Wild Flowers	5.00	Highway to the North	7.50
F. Schuyler Mathews		Frank Illingworth	
Revised and Edited by Norman Taylor		Vanishing Prairie	2.95
Illustrated-Guide to Trees and Shrubs	4.00	Walt Disney	
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BOOK REVIEWS, cont.

AN INTRODUCTION TO NATURE: Birds, Wild Flowers, Trees. By John Kieran. Hanover House, Garden City, New York. 1955. Illustrated in color by Don Eckelberry, Taber Hofmann, and Michael H. Bevans. 223 pages. \$6.00.

John Kieran has combined three of his previous books, *An Introduction to Birds*, *An Introduction to Wild Flowers*, and *An Introduction to Trees*, in one splendid volume. One hundred birds, one hundred wild flowers, and one hundred trees are described in the familiar style of this popular naturalist. Although it is hardly likely that one could be frightened away from this attractively presented field guide by a fear that its approach might be overscientific, Mr. Kieran nevertheless reassures his readers, stating in his foreword that "the birds are listed more or less in the general order in which you might expect to see them if you stepped outside the door and began to look around." And in the same manner "the flowers are presented in the approximate order in which you may find them coming into bloom."

Here and there throughout the highly readable and descriptive text are scattered quotations and allusions from Mr. Kieran's rich literary store. Poetic images range from the works of Milton and Tom Moore, Keats and Tennyson, to Longfellow and James Whitcomb Riley. Robin Hood, the Indian Joe Pye, and even King Arthur's knights move through these delightful pages.

One catches the spirit of Mr. Kieran's enthusiasm for his subject in such lines as "The Aster are a wonderful group"; his conversational directness in "This shore bird [Ruddy Turnstone] on the wing looks like a flying marble cake"; his natural modesty in describing the Brown Creeper as "one of the easiest birds to overlook"; and his fine sense of humanitarianism in this first sentence on the American Chestnut, "From Maine to Minnesota and southward . . . the children of today have been deprived of a birthright."

In a concluding paragraph the author invites us to proceed with him into further fields, saying, "Let neither of us stop learning because we have come to the end of a book." After the pleasures of a book like this, it would be difficult, if not impossible, to turn one's back on the world that has been laid open to us.

The three hundred charming colored illustrations by specialists in their own fields are of a caliber equal to the text.

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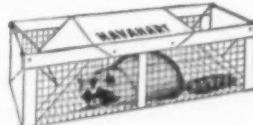
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BOOK REVIEWS, cont.

INTRODUCTION TO ORNITHOLOGICAL NOMENCLATURE. By Mary Ferguson Cole. American Book Institute, Los Angeles, California. 1954. 94 pages. \$1.50.

The author indicates in the Preface that the purpose of this publication is to make ornithological nomenclature more intelligible to those who are unfamiliar with the classical languages and thus help greatly in identification, especially where these names indicate color or marking. Often something of interest about the bird may also be determined from the scientific name. For example, there is the name for our Evening Grosbeak, *Hesperiphona vespertina*. When analyzed, we find that *Hesperiphona* comes from the Greek *hesperios* (at eventide) plus *phone* (voice) and the specific name *vespertinus* comes from the Latin *vespertinus* (belonging to the evening). Thus the scientific name indicates that this is a bird which gives voice in the evening, and it also is responsible for

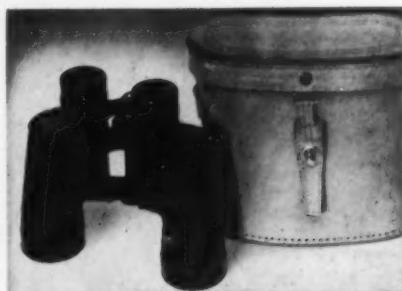
the first part of the common name of Evening Grosbeak.

There are several sections to this booklet, the first taking up the meaning of various names referring to structural character; others to color, markings, or habitat. The characterizations of a bird are also dealt with; as well as food, places, and persons for whom the bird may be named (often used particularly with subspecies). Finally, the pronunciation and derivation of the various generic specific names used is covered.

While the booklet is written primarily with birds of western United States in mind, so many of the eastern species get to that part of the country, that the information will prove of value to anyone interested in birds in the United States. And the reasonable price at which it is sold makes it readily available to all ornithologists or bird observers.

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BOOK REVIEWS, cont.

AUNT SALLY'S FRIENDS IN FUR.
By Thornton W. Burgess. Little, Brown and Company, Boston. 1955. 146 pages. \$2.75.

To Miss Alice Cooke, "understanding friend and protector of lesser folk in fur and feathers," Thornton W. Burgess has dedicated his latest book, which tells of the adventures of "Aunt Sally" (as she is known to Thornton Burgess and to many of his readers) with the animals which came to her Woodhouse Night Club.

This is a fascinating tale of Woodchucks, Raccoons, and Skunks, and of Aunt Sally's experiences with these animals and the friendliness engendered in them by her loving care. The book is a living tribute to a woman who has spent much of her life looking after and studying these wild creatures which were attracted to her unique night club. Her experiences as told here, much of them excerpts from her diaries, we are sure will encourage many others to have a more sympathetic regard for these interesting animals.

The book is well illustrated, with thirty-four photographs by the author, and we join Thornton Burgess in a salute to Aunt Sally, long a member of the Massachusetts Audubon Society, for helping through the years to develop such an interest in our wild folk. This book is a fine addition to the scores by Thornton Burgess which have been sold in this country through the years.

C. RUSSELL MASON

COLLECTING BUTTERFLIES AND MOTHS. By Ian Harmon. Published by Williams and Norgate, London. Distributed by John de Graff, Inc., New York. 1954. 128 pages. \$1.95.

There are not many books printed with the collecting of butterflies and moths as the main theme, and although the species dealt with are British, lepidopterists can gain much information from this book. The chapters on equipment, preserving, and care of the collection have many fine suggestions. Three excellent chapters, "Collecting by Day," "Collecting by Night," and "Collecting Microlepidoptera," thoroughly cover the use of equipment, beating, sweeping, and sugaring. Of particular interest is the last chapter, which is an entomological calendar. For each month of the year is given a list of species to be seen, types of larva to search for, and habitats to visit. An entomological calendar similarly worked out for any country, State, or community would be of considerable benefit.

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Congratulations to Thomas F. Killeen, Manager of the Condon Airport in North Andover, who agreed to postpone the cutting of the grass on the airport until about July 1, in order to allow the Grasshopper Sparrows to complete their nesting. This is probably one of the few stands—if not the only one—of this sparrow as a nesting bird in Essex County, according to Oscar M. Root. We certainly appreciate Mr. Killeen's interest and co-operation toward the protection of this fine small sparrow.

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BOOK REVIEWS, cont.

WORLD OUTSIDE MY DOOR. By Olive Bown Goin. The Macmillan Company, New York. 1955. 184 pages. \$3.50.

This is a book to encourage the amateur naturalist, for all one needs is a back yard. A worth-while study may be made even in a small one; nor is such a study inconsistent with caring for a house and children, as Mrs. Goin shows. Life histories, even of our common animals, deal mainly with breeding and food habits; this leaves a large part of their lives unknown. Mrs. Goin kept daily records of her yard in Florida and made real discoveries about frogs, toads, and lizards. The freshness of her observations and the ease of her style have achieved a good book.

In these days of movement and detachment, an intimacy with one's own yard could become a source of stability as well as add to knowledge.

CORA WELLMAN

THE MATING INSTINCT. By Lorus J. and Margery J. Milne. Illustrated by Olaus J. Murie. Little, Brown and Company, Boston. 1954. 243 pages. \$4.50.

The authors of *A Multitude of Living Things* have written a delightful and informative volume about what is not only one of the most absorbing subjects in the animal life around us but also directly responsible for its continuance. That the Milnes, scientists both and scholars, have still a completely human approach to their engrossing material is evident from the first chapter, entitled "Vive la Différence," to the Appendix, which begins with doggerel by Ogden Nash. All is thoroughly readable, fundamental, and sound; the number of assembled facts is staggering; the research involved makes one's head spin. And all is told. From the first awareness of attraction to the care of the offspring, the steps in courtship and mating are described in such species as glow-worms, sea urchins, phalaropes, barnacles, porcupines, horned toads, kangaroos, Luna moths, and golden-eyed green-winged lacewing flies. One acquires fascinating bits of information: scuds recognize sex by touch alone; trout mate only by day; bats prefer fall to spring; and a damsel fly may drown because her mate, holding her while she lays her eggs beneath the water, is distracted by another female flitting by.

But everything is worth while and valuable. Here is life itself. And one emerges with a renewed sense of fellowship with, and respect for, our animal neighbors.

The line drawings by Olaus J. Murie are numerous and a sheer delight.

MARJORIE BARTLETT SANGER

BOOK REVIEWS, cont.

BINOCULARS, TELESCOPES AND TELESCOPIC SIGHTS. By Truman Henson. Greenberg: Publisher, New York. 404 pages and Appendix. \$9.50.

Apparently this is the only book on this subject, but even if there were others this would still doubtless be the definitive work.

Mr. Henson is a New York attorney whose hobbies are optics, hunting, and camping. He writes as a self-taught amateur, with both authority and good humor. While no optical or engineering training is necessary in order to understand the book, there are chapters which will be hard sledding for those who do not operate a home workshop lathe. Mr. Henson explains that, while there are many thousands of amateurs who have built astronomical telescopes, little has been written to aid those who want to assemble binoculars or terrestrial telescopes.

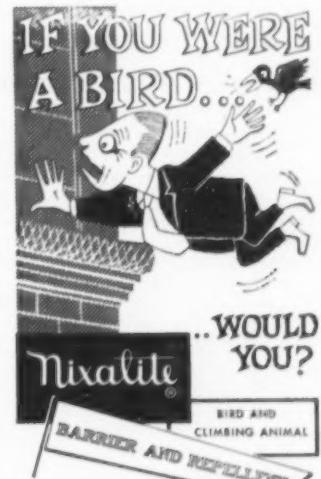
While few field ornithologists will be interested in this aspect or in the chapters on riflescopes, the volume contains a vast amount of helpful and stimulating information. Among the large number of excellently reproduced photographs and drawings are ones showing binoculars and telescopes in "exploded" views, so that anyone can understand how they are assembled and operate. The chapters on the selection of binoculars and telescopes are particularly useful, as is the Appendix giving optical and mechanical particulars of thirty-four binoculars and fourteen telescopes. Mr. Henson explains how the various types of prism work and his chapter on collimation removes most of the mystery of why binoculars get out of alignment, and he shows how an amateur may test his glasses, using a star as a target.

Mr. Henson points out that the human eyes are much too accommodating for their own good, in that they will correct for differences between the halves of a binocular in magnification and field, and will even allow for lack of alignment if the error is not too great. This explains why an inferior binocular may appear to be a wise investment on a brief inspection. In the long run such a glass will do nothing to improve one's eyesight! While the author favors binoculars and telescopes of moderate brilliance for most purposes, he does say that those with large objectives, other things being equal, will be superior in definition.

BARTLETT HENDRICKS

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From Our Correspondence

Orioles Stage "Gang Fight"

"A rather interesting demonstration of 'starling-type' actions among Baltimore Orioles was noticed here May 28th. My attention was called to a commotion in a group of oak trees, where about eight or more male and female orioles were scolding, chattering, and singing in great agitation. The action lasted from ten to fifteen minutes. Apparently there were too many pairs of potential nesting birds for this territory, where in other years only one or at most two pairs (in my estimate) have been noted.

Belmont, Mass. George A. Drew, Jr.

West End Garden Host to Hermit Thrush

"For the past four or five years, spring and fall, I have had a visit from a Hermit Thrush. The astonishing thing about it is the fact that I live in the West End of Boston with a small back yard and one lone tree. The bird nearly always stays for two days, is very tame, hopping around on the ground, sitting on the back of garden chairs, and apparently feeling very

secure. It is so tame, in fact, that I constantly worry about the cats in the neighborhood. My own I keep indoors when the thrush is here."

Leslie Keay

A Heartwarming Word From Michigan

"During these last two and a half years that I have been serving the Michigan Audubon Society as president, I have repeatedly held up the work and activities of the Massachusetts Audubon Society as a shining example to our Board of Directors. I believe the accomplishments of Massachusetts Audubon, more than any one factor, have been the inspiration to our directors to promote an ambitious and long-range program for developing an organization in Michigan which we hope will eventually be similar in nature to your organization."

Battle Creek, Michigan

Edward M. Brigham, Jr.
Director, Kingman Museum
of Natural History

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October 2, afternoon. Concord U.S. Wildlife Refuge. Miss Cushman, Bigelow 4-7613.

October 8, all day. Sudbury, Wayside Inn and vicinity. Mr. Talbot. Afternoon, Wayland. Mr. Tomfohrde, Prospect 6-1979.

October 12, all day. Ipswich and vicinity. Mr. Lewis, Crystal 9-1355-R.

October 15, all day. Newburyport, Artichoke, and Rice Marshes. Mr. Leadbeater, Beverly 4205. Afternoon, Fresh Pond, Cambridge. Miss McCarthy, Watertown 4-9261.

October 22, all day. Parker River Refuge. Afternoon, Wayland. Leaders to be announced.

October 29, all day. Ipswich, Clark's Pond, and Dunes. Afternoon, Belmont Hill. Leaders to be announced.

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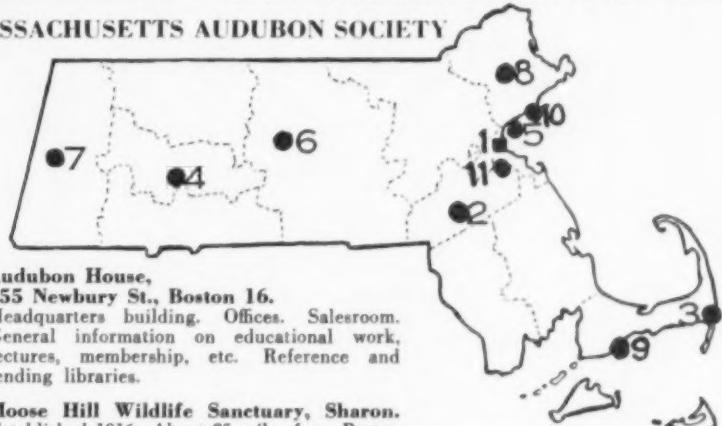
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